```
? s cyclic(w)dinucleotide(w)c-di-GMP or 3',5'-cyclic monophosphate or
cyclic(w)bis(w)(3'5')(w)diguanylic acid or cyclic(w)diguanylic(w)acid or cGpGp or
c-GpGp or c-di-GMP
Processing
Processing
      1559991   CYCLIC
       138829   DINUCLEOTIDE
           64   C-DI-GMP
            0   CYCLIC(W)DINUCLEOTIDE(W)C-DI-GMP
            2   3,5-CYCLIC MONOPHOSPHATE
      1559991   CYCLIC
      1957751   BIS
      2658383   35
           28   DIGUANYLIC ACID
            0   CYCLIC(W)BIS(W)35(W)DIGUANYLIC ACID
      1559991   CYCLIC
          483   DIGUANYLIC
     16527444   ACID
           396   CYCLIC(W)DIGUANYLIC(W)ACID
            38   CGPGP
            0   C-GPGP
           64   C-DI-GMP
S1         453   S CYCLIC(W)DINUCLEOTIDE(W)C-DI-GMP OR 3',5'-CYCLIC MONOPHOSPHATE OR
CYCLIC(W)BIS(W)(3'5')(W)DIGUANYLIC ACID OR CYCLIC(W)DIGUANYLIC(W)ACID OR CGPGP OR
C-GPGP OR C-DI-GMP

? s s1 or cyclic(w)diguanylate
           453   S1
      1559991   CYCLIC
           593   DIGUANYLATE
           165   CYCLIC(W)DIGUANYLATE
S2         562   S S1 OR CYCLIC(W)DIGUANYLATE

? s s2 and (water or saline or PBS or suspension)
Processing
           562   S2
      9390139   WATER
       686507   SALINE
        65983   PBS
       620896   SUSPENSION
S3          33   S S2 AND (WATER OR SALINE OR PBS OR SUSPENSION)

? rd
>>>W:  Duplicate detection is not supported for File 393.
Duplicate detection is not supported for File 391.
Records from unsupported files will be retained in the RD set.
S4          29   RD  (UNIQUE ITEMS)

? t s4/3,k/1-29
>>>W:  KWIC option is not available in file(s): 399
 4/3,K/1 (Item 1 from file: 5)  Links
   Fulltext available through:    USPTO Full Text Retrieval Options
Biosis Previews(R)
(c) 2007 The Thomson Corporation. All rights reserved.
0019787406   Biosis No.: 200700447147
Urine osmolality, cyclic AMP and aquaporin-2 in urine of patients under lithium
treatment in response to water loading followed by vasopressin administration

Author: Wilting Ingeborg; Baumgarten Ruben; Movig Kris L L; van Laarhoven Jan;
Apperloo Alfred J; Nolen Willem A; Heerdink Eibert R; Knoers Nine V A M; Egberts
Antoine C G (Reprint)
Author Address: Utrecht Inst Pharmaceut Sci, Div Pharmacoepidemiol and
Pharmacotherapy, PO Box 80082, NL-3508 TB Utrecht, Netherlands**Netherlands
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Author E-mail Address: a.c.g.egberts@uu.nl
Journal: European Journal of Pharmacology 566 (1-3): p 50-57 JUL 2 2007 2007
Item Identifier: doi:10.1016/j.ejphar.2007.03.038
ISSN: 0014-2999
Document Type: Article
Record Type: Abstract
Language: English
...cyclic AMP and aquaporin-2 in urine of patients under lithium treatment in response to water loading followed by vasopressin administration

Abstract: ...urine osmolality were determined during a situation of minimal kidney urine concentrating activity (induced by water loading) and during a situation following maximal stimulation of kidney urine concentrating activity (induced by... ...AMP but not aquaporin-2 levels upon 1-desamino-8-D-arginine-vasopressin administration after water loading significantly differed between the three categories, decreasing with increasing NDI category.In conclusion we... ...the cyclic AMP generation in response to 1-desamino-8-D-arginine-vasopressin administration after water loading, is impaired. It remains to be elucidated whether principal cells, G-proteins or adenylate...
DESCRIPTORS:
Chemicals & Biochemicals: ...3,5-cyclic monophosphate

4/3,K/2 (Item 2 from file: 5) Links
Fulltext available through: USPTO Full Text Retrieval Options
Biosis Previews(R)

18261395 Biosis No.: 200500168131
c-di-GMP (3'-5'-cyclic diguanylic acid) inhibits Staphylococcus aureus cell-cell interactions and biofilm formation

Author: Karaolis David K R (Reprint); Rashid Mohammed H; Chythanya Rajanna; Luo Wensheng; Hyodo Mamoru; Hayakawa Yoshihiro
Author Address: Sch MedDept Epidemiol and Prevent Med, Univ Maryland, Baltimore, MD, 21201, USA**USA
Author E-mail Address: karaolis@umaryland.edu
Journal: Antimicrobial Agents and Chemotherapy 49 (3): p 1029-1038 March 2005 2005
Medium: print
ISSN: 0066-4804 _(ISSN print)
Document Type: Article
Record Type: Abstract
Language: English
c-di-GMP (3'-5'-cyclic diguanylic acid) inhibits Staphylococcus aureus cell-cell interactions and biofilm formation

Abstract: ...We recently proposed that modulating levels of the cyclic dinucleotide signaling molecule, c-di-GMP (cyclic diguanylate (3',5'- cyclic diguanylic acid), cGpGp), has utility in regulating phenotypes of prokaryotes. We report that extracellular c-di-GMP shows... ...MRSA) isolates. We show that chemically synthesized c-di-GMP is soluble and stable in water and physiological saline and stable following boiling and exposure to acid and alkali. Treatment of S. aureus with...

4/3,K/3 (Item 1 from file: 34) Links
Fulltext available through: USPTO Full Text Retrieval Options
SciSearch(R) Cited Ref Sci

15102600 Genuine Article#: 035LC No. References: 43
Organic synthesis, chemical properties, and biological activities of cyclic bis(3'-5')diguanylic acid (c-di-GMP) and its analogs

Author: Hyodo M (REPRINT) ; Hayakawa Y; Karaolis DKR
Corporate Source: Nagoya Univ,Grad Sch Human Informat Informat Sci, CREST JST, Chikusa Ku,Nagoya/Aichi 4648601/Japan/ (REPRINT); Nagoya Univ,Grad Sch Human Informat Informat Sci, CREST JST, Chikusa Ku,Nagoya/Aichi 4648601/Japan/ (hyodo m@info.human.nagoya-u.ac.jp; yoshi@is.nagoya-u.ac.jp; karaolis@umaryland.edu)
Journal: JOURNAL OF SYNTHETIC ORGANIC CHEMISTRY JAPAN , 2006 , V 64 , N4 (APR) , P 359-370
ISSN: 0037-9980 Publication date: 20060400
Publisher: SOC SYNTHETIC ORGANIC CHEM JPN , CHEMISTRY HALL, 1-5 KANDA-SURUGADAI, CHIYODA-KU, TOKYO, 101, JAPAN
Language: Japanese Document Type: REVIEW (ABSTRACT AVAILABLE)
Abstract: ...shown that C-di-GMP smoothly aggregates to form a mixture of many compounds in water, in < 0.9% sodium chloride solutions, in < 100 mM phosphate buffer solutions, and in < 100...
Identifiers-- ...3',5'-CYCLIC DIGUANYLIC ACID; IONIZATION MASS-SPECTROMETRY; OLIGONUCLEOTIDE SYNTHESIS; ACETOBACTER-XYLINUM; CELLULOSE SYNTHESIS; BIOFILM RESISTANCE; BACTERIAL BIOFILMS; ALKALI-METALS ...

4/3,K/4 (Item 2 from file: 34) Links
Fulltext available through: USPTO Full Text Retrieval Options
SciSearch(R) Cited Ref Sci

06778063 Genuine Article#: ZR120 No. References: 32
Improved production of bacterial cellulose and its application potential

Author: Vandamme EJ (REPRINT) ; DeBaets S; Vanbaelen A; Joris K; DeWulf P
Corporate Source: STATE UNIV GHENT,LAB IND MICROBIOL & BIOCATALYSIS, COUPRE LINKS 653/B-9000 GHENT//BELGIUM/ (REPRINT)
Journal: POLYMER DEGRADATION AND STABILITY , 1998 , V 59 , N1-3,SI , P 93-99
ISSN: 0141-3910 Publication date: 19980000
Publisher: ELSEVIER SCI LTD , THE BOULEVARD, LANGFORD LANE, KIDLINGTON, OXFORD OX5 1GB, OXON, ENGLAND
Language: English Document Type: ARTICLE (ABSTRACT AVAILABLE)
Abstract: Bacterial cellulose, produced by Acetobacter species, displays unique properties, including high mechanical strength, high water absorption capacity, high crystallinity, and an ultra-fine and highly pure fibre network structure. It...
Identifiers-- ...XYLINUM SUBSP SUCROFERMENTANS; CYCLIC DIGUANYLIC ACID; ACETOBACTER-XYLINUM; GLUCOSE; KU-1

4/3,K/5 (Item 3 from file: 34) Links
Fulltext available through: USPTO Full Text Retrieval Options
SciSearch(R) Cited Ref Sci

02129398 Genuine Article#: KC924 No. References: 43
ENLARGEMENT IN CHARA STUDIED WITH A TURGOR CLAMP - GROWTH-RATE IS NOT DETERMINED BY TURGOR

Author: ZHU GL; BOYER JS
Corporate Source: UNIV DELAWARE,COLL MARINE STUDIES/LEWES//DE/19958; UNIV DELAWARE,COLL MARINE STUDIES/LEWES//DE/19958; UNIV DELAWARE,COLL AGR/LEWES//DE/19958

Journal: PLANT PHYSIOLOGY , 1992 , V 100 , N4 (DEC) , P 2071-2080
ISSN: 0032-0889
Language: ENGLISH Document Type: ARTICLE (Abstract Available)
Abstract: ...the pressure probe in place when growth was monitored with a position transducer. Growth-induced water potentials were negligible and turgor effects could be studied simply. As turgor was decreased, there...
Identifiers-- ...LOW WATER POTENTIALS; CELL-WALL SYNTHESIS; HYDRAULIC CONDUCTIVITY; MAIZE COLEOPTILES; AUXIN; EXTENSIBILITY; EXPANSION; INVIVO; ELONGATION; SEGMENTS
Research Fronts: 90-3088 003 (WATER TRANSPORT; PRESSURE PROBE; CELL-WALL EXTENSIBILITY OF INTACT WHEAT ROOTS; TREE STEMS; HYDRAULIC CONDUCTANCE; DROUGHT...

...SUGAR-BEET PECTINS; STRUCTURAL FEATURES; HAIRY FRAGMENTS; REGENERATING CARROT PROTOPLASTS)
90-3372 001 (CELLULOSE SYNTHASE; CYCLIC DIGUANYLIC ACID REGULATORY SYSTEM; HYPHAL CELL-WALL; CONGO RED)

4/3,K/6 (Item 4 from file: 34) Links
Fulltext available through: USPTO Full Text Retrieval Options
SciSearch(R) Cited Ref Sci

02129375 Genuine Article#: KC924 No. References: 33
INHIBITION AND ULTRAVIOLET-INDUCED CHEMICAL MODIFICATION OF UDP-GLUCOSE - (1,3)-BETA-GLUCAN (CALLOSE) SYNTHASE BY CHLORPROMAZINE - MECHANISM OF CHLORPROMAZINE BINDING TO THE PLANT PLASMA-MEMBRANE

Author: HARRIMAN RW; SHAO AP; WASSERMAN BP
Corporate Source: RUTGERS STATE UNIV,COOK COLL,NEW JERSEY AGR EXPT STN,DEPT FOOD SCI/NEW BRUNSWICK//NJ/08903
Journal: PLANT PHYSIOLOGY , 1992 , V 100 , N4 (DEC) , P 1927-1933
ISSN: 0032-0889
Language: ENGLISH Document Type: ARTICLE (Abstract Available)
Identifiers-- ...BETA-VULGARIS L; TRACHEARY-ELEMENT DIFFERENTIATION; SUSPENSION -CULTURED CELLS; CALCIUM-CHANNEL BLOCKERS; ZINNIA REQUIRES UPTAKE; ACETYLCHOLINE-RECEPTOR; PHOSPHATIDATE PHOSPHOHYDROLASE; PHENOTHIAZINE-DERIVATIVES; CALMODULIN...
Research Fronts: ...I; RAS ADENYLATE-CYCLASE PATHWAY; HEAT-SHOCK PROTEIN HSP70 FAMILY)
90-3372 001 (CELLULOSE SYNTHASE; CYCLIC DIGUANYLIC ACID REGULATORY SYSTEM; HYPHAL CELL-WALL; CONGO RED)

4/3,K/7 (Item 5 from file: 34) Links
Fulltext available through: USPTO Full Text Retrieval Options
SciSearch(R) Cited Ref Sci

02062738 Genuine Article#: JY251 No. References: 66
DISPERSED LIGNIN IN TRACHEARY ELEMENTS TREATED WITH CELLULOSE SYNTHESIS INHIBITORS PROVIDES EVIDENCE THAT MOLECULES OF THE SECONDARY CELL-WALL MEDIATE WALL PATTERNING

Author: TAYLOR JG; OWEN TP; KOONCE LT; HAIGLER CH
Corporate Source: TEXAS TECH UNIV,DEPT BIOL SCI/LUBBOCK//TX/79409; TEXAS TECH UNIV,DEPT BIOL SCI/LUBBOCK//TX/79409
Journal: PLANT JOURNAL , 1992 , V 2 , N6 (NOV) , P 959-970
ISSN: 0960-7412
Language: ENGLISH Document Type: ARTICLE (Abstract Available)
Abstract: ...Zinnia elegans var. Envy that had been induced to differentiate into tracheary elements (TEs) in suspension culture were treated with the cellulose synthesis inhibitor 2,6-dichlorobenzonitrile (DCB). The deposition of...
Research Fronts: ...SUGAR-BEET PECTINS; STRUCTURAL FEATURES; HAIRY FRAGMENTS; REGENERATING CARROT PROTOPLASTS)
90-3372 001 (CELLULOSE SYNTHASE; CYCLIC DIGUANYLIC ACID REGULATORY SYSTEM; HYPHAL CELL-WALL; CONGO RED)

4/3,K/8 (Item 6 from file: 34) Links
Fulltext available through: USPTO Full Text Retrieval Options
SciSearch(R) Cited Ref Sci

02013674 Genuine Article#: JT860 No. References: 30
EFFECTS OF CYCLING TEMPERATURES ON FIBER METABOLISM IN CULTURED COTTON OVULES

Author: ROBERTS EM; RAO NR; HUANG JY; TROLINDER NL; HAIGLER CH
Corporate Source: TEXAS TECH UNIV,DEPT BIOL SCI/LUBBOCK//TX/79409; TEXAS TECH

UNIV,DEPT BIOL SCI/LUBBOCK//TX/79409; USDA,PLANT STRESS & WATER CONSERVAT RES UNIT/LUBBOCK//TX/79401
Journal: PLANT PHYSIOLOGY , 1992 , V 100 , N2 (OCT) , P 979-986
ISSN: 0032-0889
Language: ENGLISH Document Type: ARTICLE (Abstract Available)
Research Fronts: 90-2073 002 (FREEZING TOLERANCE; ICE NUCLEATING ACTIVITY; COTTON WATER-STRESS; COLD HARDINESS)
90-0364 001 (CELL-WALL POLYSACCHARIDES; SUGAR-BEET PECTINS; STRUCTURAL FEATURES; HAIRY FRAGMENTS; REGENERATING CARROT PROTOPLASTS)
90-3372 001 (CELLULOSE SYNTHASE; CYCLIC DIGUANYLIC ACID REGULATORY SYSTEM; HYPHAL CELL-WALL; CONGO RED)

4/3,K/9 (Item 7 from file: 34) Links
Fulltext available through: USPTO Full Text Retrieval Options
SciSearch(R) Cited Ref Sci

01926989 Genuine Article#: JM559 No. References: 148
DNA-STRUCTURE FROM A TO Z

Author: DICKERSON RE
Corporate Source: UNIV CALIF LOS ANGELES,INST MOLEC BIOL/LOS ANGELES//CA/90024
Journal: METHODS IN ENZYMOLOGY , 1992 , V 211 , P 67-111
ISSN: 0076-6879
Language: ENGLISH Document Type: REVIEW
Identifiers-- ...CRYSTAL-STRUCTURE ANALYSIS; SEQUENCE-DEPENDENT CONFORMATION; ANTITUMOR DRUG NOGALAMYCIN; 1.0-A ATOMIC RESOLUTION; ORDERED WATER-STRUCTURE; CYCLIC DIGUANYLIC ACID; DOUBLE HELICAL DNA; LEFT-HANDED DNA; B-Z TRANSITION; G-C-G

4/3,K/10 (Item 8 from file: 34) Links
Fulltext available through: USPTO Full Text Retrieval Options
SciSearch(R) Cited Ref Sci

01909593 Genuine Article#: JL023 No. References: 186
ROLE OF CALCIUM IN ALUMINUM TOXICITY

Author: RENGEL Z
Corporate Source: UNIV ADELAIDE,WAITE AGR RES INST,DEPT PLANT SCI/GLEN OSMOND/SA 5064/AUSTRALIA/
Journal: NEW PHYTOLOGIST , 1992 , V 121 , N4 (AUG) , P 499-513
ISSN: 0028-646X
Language: ENGLISH Document Type: REVIEW (Abstract Available)
Research Fronts: ...90-2954 001 (METALLOTHIONEIN GENES; CADMIUM RESISTANCE; HEAVY METAL-BINDING PROTEINS PEPTIDES)
90-3088 001 (WATER TRANSPORT; PRESSURE PROBE; CELL-WALL EXTENSIBILITY OF INTACT WHEAT ROOTS; TREE STEMS; HYDRAULIC CONDUCTANCE; DROUGHT RESISTANCE)
90-3372 001 (CELLULOSE SYNTHASE; CYCLIC DIGUANYLIC ACID REGULATORY SYSTEM; HYPHAL CELL-WALL; CONGO RED)
90-3916 001 (PHOSPHORUS STRESS; NITRATE TRANSPORT IN MAIZE ROOTS; PHOSPHATE DEPRIVATION; NITROGEN UPTAKE; BRASSICA-NIGRA SUSPENSION CELLS; SORGHUM PLANTS)
90-4451 001 (SALINITY TOLERANCE; SALT STRESS; HIGH NACL CONCENTRATIONS; EARLY GROWTH...

4/3,K/11 (Item 9 from file: 34) Links
Fulltext available through: USPTO Full Text Retrieval Options
SciSearch(R) Cited Ref Sci

01899533 Genuine Article#: JK206 No. References: 29
ROOT MORPHOLOGY MUTANTS IN ARABIDOPSIS-THALIANA

Author: BASKIN TI; BETZNER AS; HOGGART R; CORK A; WILLIAMSON RE

Corporate Source: UNIV MISSOURI,DIV BIOL SCI/COLUMBIA//MO/65211; AUSTRALIAN NATL UNIV,RES SCH BIOL SCI,PLANT CELL BIOL GRP/CANBERRA/ACT 2601/AUSTRALIA/
Journal: AUSTRALIAN JOURNAL OF PLANT PHYSIOLOGY , 1992 , V 19 , N4 , P 427-437
ISSN: 0310-7841
Language: ENGLISH Document Type: ARTICLE (Abstract Available)
Research Fronts: 90-3088 001 (WATER TRANSPORT; PRESSURE PROBE; CELL-WALL EXTENSIBILITY OF INTACT WHEAT ROOTS; TREE STEMS; HYDRAULIC CONDUCTANCE; DROUGHT RESISTANCE)
 90-3372 001 (CELLULOSE SYNTHASE; CYCLIC DIGUANYLIC ACID REGULATORY SYSTEM; HYPHAL CELL-WALL; CONGO RED)

 4/3,K/12 (Item 10 from file: 34) Links
SciSearch(R) Cited Ref Sci

01762302 Genuine Article#: HY605 No. References: 42
LIQUID-CRYSTAL ORDER AND TURBULENCE IN THE PLANAR TWIST OF THE GROWING PLANT-CELL WALLS

Author: ROLAND JC; REIS D; VIAN B
Corporate Source: UNIV PARIS 06,ECOLE NORMALE SUPER,BIOMEMBRANES & SURFACES CELLULAIRES,46 RUE ULM/F-75230 PARIS 05//FRANCE/
Journal: TISSUE & CELL , 1992 , V 24 , N3 , P 335-345
Language: ENGLISH Document Type: ARTICLE (Abstract Available)
Research Fronts: 90-3088 002 (WATER TRANSPORT; PRESSURE PROBE; CELL-WALL EXTENSIBILITY OF INTACT WHEAT ROOTS; TREE STEMS; HYDRAULIC CONDUCTANCE; DROUGHT RESISTANCE)
 90-3372 001 (CELLULOSE SYNTHASE; CYCLIC DIGUANYLIC ACID REGULATORY SYSTEM; HYPHAL CELL-WALL; CONGO RED)

 4/3,K/13 (Item 11 from file: 34) Links
SciSearch(R) Cited Ref Sci

01734124 Genuine Article#: HW518 No. References: 300
CELL BIOLOGY OF PATHOGENESIS

Author: HARDHAM AR
Corporate Source: AUSTRALIAN NATL UNIV,RES SCH BIOL SCI,PLANT CELL BIOL GRP/CANBERRA/ACT 2601/AUSTRALIA/
Journal: ANNUAL REVIEW OF PLANT PHYSIOLOGY AND PLANT MOLECULAR BIOLOGY , 1992 , V 43 , P 491-526
Language: ENGLISH Document Type: REVIEW
Research Fronts: 90-0403 005 (PATHOGENESIS-RELATED PROTEINS; BEAN CHITINASE PROMOTER IN TRANSGENIC TOBACCO PLANTS; CELL-SUSPENSION CULTURES; RUST WHEAT INTERACTIONS; TOMATO LEAVES)
 90-6291 003 (RICE BLAST FUNGUS MAGNAPORTHE-GRISEA; INFECTION... ...SPINDLE POLE BODY; MICROTUBULE FUNCTION IN ASPERGILLUS-NIDULANS; CONGO RED)
 90-3372 001 (CELLULOSE SYNTHASE; CYCLIC DIGUANYLIC ACID REGULATORY SYSTEM; HYPHAL CELL-WALL; CONGO RED)
 90-6511 001 (CA-2+ CHANNELS IN ISOLATED...

 4/3,K/14 (Item 12 from file: 34) Links
SciSearch(R) Cited Ref Sci

01648566 Genuine Article#: HM863 No. References: 86
SIZE, MORPHOLOGY AND COMPOSITION OF PARTICULATES IN AQUATIC ECOSYSTEMS - SOLVING SPECIATION PROBLEMS BY CORRELATIVE ELECTRON-MICROSCOPY

Author: LEPPARD GG
Corporate Source: NATL WATER RES INST BRANCH,RIVERS RES BRANCH/BURLINGTON L7R 4A6/ONTARIO/CANADA/

Journal: ANALYST , 1992 , V 117 , N3 (MAR) , P 595-603
Language: ENGLISH Document Type: ARTICLE (Abstract Available)
Identifiers-- ...ORGANIC-MATTER; COLLOIDAL FIBRILS; LAKE WATER; PARTICLES; IRON; AGGREGATION; SEDIMENTS; BACTERIA; COATINGS; SEAWATER
Research Fronts: ...PSEUDOMONAS-AERUGINOSA INFECTION; COPPER CORROSION; DIVISION CYCLE; COAGULASE-NEGATIVE STAPHYLOCOCCI)
 90-3372 001 (CELLULOSE SYNTHASE; CYCLIC DIGUANYLIC ACID REGULATORY SYSTEM; HYPHAL CELL-WALL; CONGO RED)
 90-3464 001 (HUMIC SUBSTANCES; PHYSICOCHEMICAL HETEROGENEITY OF...

 4/3,K/15 (Item 13 from file: 34) Links
SciSearch(R) Cited Ref Sci

01590101 Genuine Article#: HK437 No. References: 22
STRUCTURAL FEATURES OF NATIVE CELLULOSE GELS AND FILMS FROM THEIR SUSCEPTIBILITY TO ENZYMATIC ATTACK

Author: BELTRAME PL; PAGLIA ED; SEVES A; PELLIZZONI E; ROMANO M
Corporate Source: UNIV MILAN,DIPARTIMENTO CHIM FIS & ELETTROCHIM/I-20122 MILAN//ITALY/; STN SPERIMENTALE SETA/MILAN//ITALY/; STN SPERIMENTALE CELLULOSA CARTA & FIBRE TESSILI VEGETALI & ARTIFICIALI/MILAN//ITALY/
Journal: JOURNAL OF APPLIED POLYMER SCIENCE , 1992 , V 44 , N12 (APR 25) , P 2095-2101
Language: ENGLISH Document Type: ARTICLE (Abstract Available)
Abstract: ...accessibility with temperature can be associated with a corresponding lowering of the amount of structured water close to the polymer chains in the gel. The significant decrease of susceptibility to enzymic ...
Research Fronts: ...MUSHROOM TERMITOMYCES-CLYPEATUS; SWEET-POTATO BETA-AMYLASE; LICHEN EVERNIA-PRUNASTRI)
 90-3372 001 (CELLULOSE SYNTHASE; CYCLIC DIGUANYLIC ACID REGULATORY SYSTEM; HYPHAL CELL-WALL; CONGO RED)

 4/3,K/16 (Item 14 from file: 34) Links
SciSearch(R) Cited Ref Sci

01490895 Genuine Article#: HD018 No. References: 64
PHOSPHOROTHIOATE OLIGONUCLEOTIDES - CHEMISTRY, PURIFICATION, ANALYSIS, SCALE-UP AND FUTURE-DIRECTIONS

Author: ZON G; GEISER TG
Corporate Source: APPL BIOSYST INC,THERAPEUT GRP,400 LINCOLN CTR DR/FOSTER CITY//CA/94404
Journal: ANTI-CANCER DRUG DESIGN , 1991 , V 6 , N6 (DEC) , P 539-568
Language: ENGLISH Document Type: ARTICLE (Abstract Available)
Abstract: ...of their features: relatively easy automated synthesis, uncomplicated purification and handling, plus high solubility in water. Presented here are current preparative and analytical methods, together with a comprehensive comparative analysis of...
Research Fronts: ...THE H-PHOSPHONATE APPROACH; NATURAL DNA; REGULATION OF GENE-EXPRESSION)
 90-3372 001 (CELLULOSE SYNTHASE; CYCLIC DIGUANYLIC ACID REGULATORY SYSTEM; HYPHAL CELL-WALL; CONGO RED)
 90-5147 001 (PHOSPHOROTHIOATE ANALOGS; AUTOLYTIC PROCESSING REACTION...

 4/3,K/17 (Item 15 from file: 34) Links
SciSearch(R) Cited Ref Sci

01485485 Genuine Article#: HC428 No. References: 80
MOLECULAR-SIZE AND SEPARABILITY FEATURES OF PEA CELL-WALL POLYSACCHARIDES - IMPLICATIONS FOR MODELS OF PRIMARY WALL STRUCTURE

Author: TALBOTT LD; RAY PM
Corporate Source: STANFORD UNIV,DEPT BIOL SCI/STANFORD//CA/94305; STANFORD UNIV,DEPT BIOL SCI/STANFORD//CA/94305
Journal: PLANT PHYSIOLOGY , 1992 , V 98 , N1 (JAN) , P 357-368
Language: ENGLISH Document Type: ARTICLE (Abstract Available)
Identifiers-- ...CELLS; MACROMOLECULAR COMPONENTS; RHAMNOGALACTURONAN-I; HEMICELLULOSIC POLYSACCHARIDES; IMMUNOGOLD LOCALIZATION; PECTIC POLYSACCHARIDES; CHEMICAL FRACTIONATION; MATRIX POLYSACCHARIDES; SUSPENSION CULTURES
Research Fronts: ...SUGAR-BEET PECTINS; STRUCTURAL FEATURES; HAIRY FRAGMENTS; REGENERATING CARROT PROTOPLASTS)
 90-3372 001 (CELLULOSE SYNTHASE; CYCLIC DIGUANYLIC ACID REGULATORY SYSTEM; HYPHAL CELL-WALL; CONGO RED)

 4/3,K/18 (Item 16 from file: 34) Links
SciSearch(R) Cited Ref Sci

01471933 Genuine Article#: HB652 No. References: 54
SELF-ASSEMBLY OF PLANT-CELL WALLS

Author: JARVIS MC
Corporate Source: UNIV GLASGOW,DEPT CHEM/GLASGOW G12 8QQ//SCOTLAND/
Journal: PLANT CELL AND ENVIRONMENT , 1992 , V 15 , N1 (JAN) , P 1-5
Language: ENGLISH Document Type: EDITORIAL (Abstract Available)
Research Fronts: ...ACTIN POLYMERIZATION INVITRO; MYOSIN SUBFRAGMENT-1; HUMAN PLASMA GELSOLIN; TROPOMYOSIN BINDING-SITES)
 90-3088 001 (WATER TRANSPORT; PRESSURE PROBE; CELL-WALL EXTENSIBILITY OF INTACT WHEAT ROOTS; TREE STEMS; HYDRAULIC CONDUCTANCE; DROUGHT RESISTANCE)
 90-3372 001 (CELLULOSE SYNTHASE; CYCLIC DIGUANYLIC ACID REGULATORY SYSTEM; HYPHAL CELL-WALL; CONGO RED)

 4/3,K/19 (Item 17 from file: 34) Links
SciSearch(R) Cited Ref Sci

01419063 Genuine Article#: GX701 No. References: 47
SOLUTION CONFORMATION OF AN OLIGONUCLEOTIDE CONTAINING A GG MISMATCH DETERMINED BY NUCLEAR-MAGNETIC-RESONANCE AND MOLECULAR MECHANICS

Author: COGNET JAH; GABARROARPA J; LEBRET M; VANDERMAREL GA; VANBOOM JH; FAZAKERLEY GV
Corporate Source: CENS,DEPT BIOL CELLULAIRE & MOLEC,SERV BIOCHIM & GENET MOLEC,BAT 142/F-91191 GIF SUR YVETTE//FRANCE/; CENS,DEPT BIOL CELLULAIRE & MOLEC,SERV BIOCHIM & GENET MOLEC,BAT 142/F-91191 GIF SUR YVETTE//FRANCE/; INST GUSTAVE ROUSSY,PHYSICOCHIM MACROMOLEC LAB/F-94800 VILLEJUIF//FRANCE/; LEIDEN UNIV,GORLAEUS LABS/2300 RA LEIDEN//NETHERLANDS/
Journal: NUCLEIC ACIDS RESEARCH , 1991 , V 19 , N24 (DEC 25) , P 6771-6779
Language: ENGLISH Document Type: ARTICLE (Abstract Available)
Research Fronts: 90-0106 003 (LIQUID WATER; MOLECULAR-DYNAMICS SIMULATION; FREE-ENERGY PERTURBATION CALCULATIONS; DOUBLE DNA HELIX)
 90-0067 002 (SEQUENTIAL H... ...REPRESSOR HEADPIECE OPERATOR INTERACTION; RESTRAINED MOLECULAR-DYNAMICS; DUPLEX OLIGODEOXYRIBONUCLEOTIDE DODECAMERS)
 90-3372 001 (CELLULOSE SYNTHASE; CYCLIC DIGUANYLIC ACID REGULATORY SYSTEM; HYPHAL CELL-WALL; CONGO RED)

 4/3,K/20 (Item 18 from file: 34) Links
SciSearch(R) Cited Ref Sci

01404399 Genuine Article#: GW289 No. References: 48
SIMULATIONS OF THE STATIC AND DYNAMIC MOLECULAR-CONFORMATIONS OF XYLOGLUCAN - THE ROLE OF THE FUCOSYLATED SIDE-CHAIN IN SURFACE-SPECIFIC SIDE-CHAIN FOLDING

Author: LEVY S; YORK WS; STUIKEPRILL R; MEYER B; STAEHELIN LA
Corporate Source: UNIV COLORADO,DEPT MOLEC CELLULAR & DEV BIOL/BOULDER//CO/80309; UNIV GEORGIA,COMPLEX CARBOHYDRATE RES CTR/ATHENS//GA/30602
Journal: PLANT JOURNAL , 1991 , V 1 , N2 (SEP) , P 195-215
Language: ENGLISH Document Type: ARTICLE (Abstract Available)
Abstract: ...fragments with a twisted backbone conformation. Preliminary NMR data on nonasaccharide fragments isolated from sycamore suspension-cultured cell walls are consistent with the hypothesis that the twisted conformation of xyloglucan represents...
Research Fronts: ...SUGAR-BEET PECTINS; STRUCTURAL FEATURES; HAIRY FRAGMENTS; REGENERATING CARROT PROTOPLASTS)
90-3372 001 (CELLULOSE SYNTHASE; CYCLIC DIGUANYLIC ACID REGULATORY SYSTEM; HYPHAL CELL-WALL; CONGO RED)
90-7345 001 (CONFORMATIONAL-ANALYSIS OF OLIGOSACCHARIDES; 3...

4/3,K/21 (Item 19 from file: 34) Links
SciSearch(R) Cited Ref Sci

01209148 Genuine Article#: GE751 No. References: 27
CHROMONIC LYOMESOPHASES FORMED BY THE SELF-ASSEMBLY OF THE CYCLIC DINUCLEOTIDE D(CGPGP)

Author: BONAZZI S; DEMORAIS MM; GARBESI A; GOTTARELLI G; MARIANI P; SPADA GP
Corporate Source: UNIV BOLOGNA,DIPARTIMENTO CHIM ORGAN A MANGINI,VIA S DONATO 15/I-40127 BOLOGNA//ITALY/; UNIV BOLOGNA,DIPARTIMENTO CHIM ORGAN A MANGINI,VIA S DONATO 15/I-40127 BOLOGNA//ITALY/; UNIV ANCONA,IST FIS MED/I-60131 ANCONA//ITALY/; ICOCEA,CONSIGLIO NAZL RICERCHE/I-40064 OZZANO EMILIA//ITALY/
Journal: LIQUID CRYSTALS , 1991 , V 10 , N4 , P 495-506
Language: ENGLISH Document Type: ARTICLE (Abstract Available)
CHROMONIC LYOMESOPHASES FORMED BY THE SELF-ASSEMBLY OF THE CYCLIC DINUCLEOTIDE D(CGPGP)
Abstract: The cyclic dinucleotide d(cGpGp) undergoes a self-association process in water to give, first, columnar aggregates similar to the four-stranded helix of poly(G). Successively...

4/3,K/22 (Item 20 from file: 34) Links
SciSearch(R) Cited Ref Sci

00843836 Genuine Article#: FA695 No. References: 187
CELLULOSE BIOSYNTHESIS AND FUNCTION IN BACTERIA

Author: ROSS P; MAYER R; BENZIMAN M
Corporate Source: HEBREW UNIV JERUSALEM,INST LIFE SCI,DEPT BIOL CHEM/IL-91904 JERUSALEM//ISRAEL/; HEBREW UNIV JERUSALEM,INST LIFE SCI,DEPT BIOL CHEM/IL-91904 JERUSALEM//ISRAEL/
Journal: MICROBIOLOGICAL REVIEWS , 1991 , V 55 , N1 , P 35-58
Language: ENGLISH Document Type: REVIEW (Abstract Available)
Abstract: ...subunits, is subject to a multicomponent regulatory system. Regulation is based on the novel nucleotide cyclic diguanylic acid, a positive allosteric effector, and the regulatory enzymes maintaining its intracellular turnover: diguanylate cyclase and Ca2+-sensitive bis-(3',5')-cyclic diguanylic acid (c-di-GMP) phosphodiesterase. Four genes have been isolated from A. xylinum which constitute the...
Identifiers-- ...ROOT HAIR TIPS; LEGUMINOSARUM BIOVAR VICIAE; XANTHAN GUM BIOSYNTHESIS; POSSIBLE REGULATORY ROLE; CYCLIC DIGUANYLIC ACID; ACETOBACTER-XYLINUM; AGROBACTERIUM-TUMEFACIENS; RHIZOBIUM-LEGUMINOSARUM; ESCHERICHIA-COLI; UDP-GLUCOSE
Research Fronts: 89-1204 001 (TISSUE WATER RELATIONS; LOBLOLLY-PINE (PINUS-TAEDA L) SEEDLINGS; OSMOTIC POTENTIALS; DROUGHT STRESS RESPONSES; MUNG BEAN HYPOCOTYLS...

4/3,K/23 (Item 1 from file: 73) Links
Fulltext available through: USPTO Full Text Retrieval Options
EMBASE

0080466270 EMBASE No: 2005110426
c-di-GMP (3prime-5prime-cyclic diguanylic acid) inhibits Staphylococcus aureus cell-cell interactions and biofilm formation

Karaolis D.K.R.; Rashid M.H.; Chythanya R. // Luo W. // Hyodo M.; Hayakawa Y.
Dept. of Epidemiol. and Prev. Med., Univ. of Maryland School of Medicine, Baltimore, MD 21201, United States // Department of Medicine, Univ. of Maryland School of Medicine, Baltimore, MD, United States // Grad. Sch. of Info. Sci./Hum. Info., CREST/JST, Nagoya University, Nagoya, Japan
Author email: karaolis@umaryland.edu
Corresp. Author: Karaolis D.K.R.
Corresp. Author Affil: Dept. of Epidemiol. and Prev. Med., Univ. of Maryland School of Medicine, Baltimore, MD 21201, United States
Corresp. Author email: karaolis@umaryland.edu

Antimicrobial Agents and Chemotherapy (Antimicrob. Agents Chemother.) (United States) March 1, 2005 , 49/3 (1029-1038)
CODEN: AMACC ISSN: 00664804
Item Identifier (DOI): 10.1128/AAC.49.3.1029-1038.2005
Document Type: Journal ; Article Record Type: Abstract
Language: English Summary language: English
Number of References: 64
c-di-GMP (3prime-5prime-cyclic diguanylic acid) inhibits Staphylococcus aureus cell-cell interactions and biofilm formation

...We recently proposed that modulating levels of the cyclic dinucleotide signaling molecule, c-di-GMP (cyclic diguanylate [3prime,5prime-cyclic diguanylic acid], cGpGp), has utility in regulating phenotypes of prokaryotes. We report that extracellular c-di-GMP shows... ...MRSA) isolates. We show that chemically synthesized c-di-GMP is soluble and stable in water and physiological saline and stable following boiling and exposure to acid and alkali. Treatment of S. aureus with...
Drug Descriptors:
...cyclic AMP; cyclic GMP; edetic acid; guanosine phosphate; meticillin; nucleotide derivative; sodium chloride; unclassified drug; water
Drug Terms (Uncontrolled): cyclic diguanylate--drug analysis--an; cyclic diguanylate--pharmacology--pd
CAS Registry Number: ...61-32-5 (meticillin); 7647-14-5 (sodium chloride); 7732-18-5 (water)

4/3,K/24 (Item 1 from file: 155) Links
Fulltext available through: USPTO Full Text Retrieval Options
MEDLINE(R)

23681681 PMID: 17150661
Chemical behavior of bis(3'-5')diguanylic acid in aqueous solutions.

Hyodo Mamoru; Sato Yumi; Hayakawa Yoshihiro; Karaolis David K R
Graduate School of Information Science/Human Informatics, and CREST/JST, Nagoya University, Chikusa, Nagoya 464-8601, Japan.
Nucleic acids symposium series (2004) (England) 2005 , (49) p117-8 , ISSN: 1746-8272--Electronic Journal Code: 101259965
Publishing Model Print
Document type: Journal Article; Research Support, Non-U.S. Gov't
Languages: ENGLISH
Main Citation Owner: NLM
Record type: MEDLINE; Completed
...in aprotic organic solvents such as DMSO. By contrast, c-di-GMP smoothly

aggregates in water and in low-concentration aqueous solutions of some salts, such as sodium chloride and ammonium...
; ...Chromatography, High Pressure Liquid; Cyclic GMP--chemistry--CH; Magnetic Resonance Spectroscopy; Solutions; Solvents--chemistry--CH; Water--chemistry--CH
Chemical Name: Buffers; Solutions; Solvents; bis(3',5')-cyclic diguanylic acid; Cyclic GMP; Water

4/3,K/25 (Item 1 from file: 393) Links
Beilstein Database - Abstracts

Beilstein Abstract Id: 6552279
Title: c-di-GMP (3'-5'-Cyclic Diguanylic Acid) Inhibits Staphylococcus aureus Cell-Cell Interactions and Biofilm Formation
Document Type: Journal Record Type: Abstract
Author: Karaolis, David K. R.; Rashid, Mohammed H.; Chythanya, Rajanna; Luo, Wensheng; Hyodo, Mamoru; Hayakawa, Yoshihiro
Citation: Antimicrob. Agents & Chemother. (2005) Series: 49-3, 1029 - 1038 CODEN: AMACCQ Language: English
Abstract Language: English
Title: c-di-GMP (3'-5'-Cyclic Diguanylic Acid) Inhibits Staphylococcus aureus Cell-Cell Interactions and Biofilm Formation
Abstract: ... We recently proposed that modulating levels of the cyclic dinucleotide signaling molecule, c-di-GMP (cyclic diguanylate .3',5'-cyclic diguanylic acid., cGpGp), has utility in regulating phenotypes of prokaryotes. We report that extracellular c-di-GMP shows... ... MRSA) isolates. We show that chemically synthesized c-di-GMP is soluble and stable in water and physiological saline and stable following boiling and exposure to acid and alkali. Treatment of S. aureus with...

4/3,K/26 (Item 1 from file: 135) Links
NewsRx Weekly Reports

0000556091 (USE FORMAT 7 OR 9 FOR FULLTEXT)

Studies from the United States and Cuba add new findings to cholera body of knowledge

Life Science Weekly, July 3, 2007, p.4510

DOCUMENT TYPE: Expanded Reporting LANGUAGE: English
RECORD TYPE: FULLTEXT

Word Count:
869

...TEXT: States and Cuba describe advances in cholera. Study 1: Research findings, "PilZ domain proteins bind cyclic diguanylate and regulate diverse processes in Vibrio cholerae," are discussed in a new report. According to a study from the United States, "Cyclic diguanylate (c-di-GMP) is an allosteric activator and second messenger implicated in the regulation of...
... and colleagues published their study in the Journal of Biological Chemistry (PilZ domain proteins bind cyclic diguanylate and regulate diverse processes in Vibrio cholerae. Journal of Biological Chemistry , 2007;282(17):12860...

...the focus on V. cholerae 01 and 0139 Bengal." "A total of 297 samples of water, phytoplankton, and zooplankton were collected between March and December 2004, yielding eight V. cholerae 01...

4/3,K/27 (Item 1 from file: 8) Links
Fulltext available through: USPTO Full Text Retrieval Options
Ei Compendex(R)

11091904 E.I. No: EIP06269964445
Title: Organic synthesis, chemical properties, and biological activities of cyclic bis(3 prime -5 prime)diguanylic acid (c-di-GMP) and its analogs

Author: Hyodo, Mamoru; Hayakawa, Yoshihiro; Karaolis, David K. R.
Source: Yuki Gosei Kagaku Kyokaishi/Journal of Synthetic Organic Chemistry v 64 n 4 April 2006. p 359-370
Publication Year: 2006
CODEN: YGKKAE ISSN: 0037-9980
Language: Japanese
Abstract: ...shown that c-di-GMP smoothly aggregates to form a mixture of many compounds in water, in less than 0.9% sodium chloride solutions, in less than 100 mM phosphate buffer...
Identifiers: C-di-GMP; Nucleotides; Phosphoramidite; MRSA; Biological activities

4/3,K/28 (Item 1 from file: 266) Links
FEDRIP

00587488
Identifying No.: 2R01AI045746-06A1 Agency Code: CRISP
Role of c-diGMP signaling in Vibrio cholerae virulence

Principal Investigator: CAMILLI, ANDREW
Address: andrew.camilli@tufts.edu TUFTS UNIVERSITY 136 Harrison Avenue Boston, MA 02111
Performing Org.: TUFTS UNIVERSITY BOSTON , BOSTON , MASSACHUSETTS
Sponsoring Org.: NATIONAL INSTITUTE OF ALLERGY AND INFECTIOUS DISEASES
Dates: 2003/01/00 To 2002/28/11 Fy : 2006
Summary: ...to reduce the large medical burden imposed by this diverse group of pathogens. In the water-borne intestinal pathogen Vibrio cholerae we have demonstrated that signaling by external amino acids modulates the cytoplasmic concentration of the secondary messenger cyclic diguanylate (c-diGMP), leading to reciprocal regulation of genes important for biofilm formation and virulence. We...

4/3,K/29 (Item 1 from file: 149) Links
TGG Health&Wellness DB(SM)

01099266 Supplier Number: 04163484 (USE FORMAT 7 OR 9 FOR FULL TEXT)
Gordon Research Conferences. (Summer, 1986)

Cruickshank, Alexander M.
Science , v231 , p1163(37)
March 7 ,
1986
Publication Format: Magazine/Journal
ISSN: 0036-8075
Language: English
Record Type: Fulltext Target Audience: Academic
Word Count: 28553 Line Count: 03203

...Direct measurement of solvation forces between macromolecules"; Lawrence Pratt, "Ion motion near interfaces"; Julia Goodfellow, "Water -biopolymer interfaces"; Arieh Warshel, "Correlating structure, energy and function in solvated proteins." DNA bending (Don...modeling of the calcium oxalate surface"; J. Adair, "Interfacial phenomena at the calcium oxalate monohydrate water interface"; R. Ryall, "Growth and aggregation in crystallizers-tubular reaction crystallizer"; G. Nancollas, "Effect of... vice chairman.

11 August. (John Petty, discussion leader): Peter R. Sperry, "Theories of flocculation by water-soluble polymers"; J. Edward Glass, "Structural features promoting association in thickened latex/TiO2 slurries." (James...

...Schoff, discussion leader: James Ferguson, "Elongational viscosity"; Richard Eley, "Surface elasticity and foam stability of water-borne polymers and coatings."

14 August. (Alexander Ross, discussion leader: David Bauer, "Photodegradation, photostabilization and...of reacting systems." (E. O. Forster, discussion leader: M. T. Shaw, "Approach to mechanisms of water treeing"; J. Densley, "Recent experiments on water treeing in dielectrics."

31 July. (G. Williams, discussion leader): R. G. Palmer, "Hierarchies and constraints...

...friction: Theory and applications." (J.G. Hoffman, discussion leader): K. R. Foster, "Dielectric properties of water in biological and other suspensions."

1 August. (D. W. McCall, discussion leader): H. Sillescu, "Holographic...R. Gottscho, R. Srinivasan, S. Ceyer, C. Allen S, Bernascek, and M. Wrighton.

Environmental Sciences: Water
New Hampton School
Francois Morel, chairman; John Wood, vice chairman.
16 June. Trace gases (Peter...

...Brock Neely, discussion leader): Fumio Matsumura, "Role of algae in bioaccumulation of organic pollutants in water"; Robert V. Thomann and John P. Connolly, "Modeling of accumulation of chemicals in aquatic food...

...B. Williams, vice chairman.

9 June. (Scott Nixon, discussion leader): Victor Smatacek, "Nutrient cycling between water and sediments"; Sybil Seitzinger, "The fate of nutrient loading in estuarine systems"; Joe Ramus, "High...8 August. (K. C. Frisch, discussion leader): G. A. Campbell, "Reaction kinetics of the TDI-water reaction"; L. C. Rubens and S. Chum, "Preparation of low density thermal collapse-resistant foams...June. Syn-gas chemistry (Irving Wender, discussion leader): S. Lee, "Role of carbon dioxide and water in the synthesis of methanol"; Kamil Klier, "Reactive intermediates and synthesis patterns in C1--C4...of heat resistance in bacterial spores"; Alisa Hocking, "Physiological responses of fungi at reduced water activity." Spore germination (Peggy M. Foegeding, discussion leader): Peter Setlow, "Biochemical mechanisms of spore germination and...understanding of organic solute transport: Is the model the message?" R. J. Wagenet, "Modeling water flow and solute transport in unsaturated soil"; Peter Germann, "Current knowledge about water flow and related transport of solutes and microbes in macroporous soils." (William A. Jury, discussion leader...Cindy Lee, discussion leader): John Hedges, "Comparative diagenesis of major biochemicals near the sediment-water interface of a coastal marine bay"; Susan Henrichs, "Investigations of the decomposition of organic matter in...and subjects to be announced).

10 July. Physiological and biochemical effects of temperature and water stress (A. E. Watada, chairman): B. Patterson, "Cold sensitivity and chilling injury, a complex interrelationship." Postharvest ...its structure." (H. A. Schwarz, discussion leader): P. W. Percival, "Muonium chemistry in water and ice"; D. C. Walker, "Muonium, a light isotope of hydrogen."

25 June. (J. K. Baird, discussion...Patterson, "Physics and chemistry of excited state processes in monolayers at the air-water interface"; E. J. Land, "Some recent applications of pulsed irradiation techniques to the chemistry of biology and...

...applications of the explosion process." (P. C. Trotter, discussion leader): M. Benziman, "The cyclic diguanylic acid regulatory system of bacterial cellulose synthesis"; T. W. Jeffries, "Regulation and kinetics of xylose fermentations in Pachysolen... Diels-Alder polyimides."

17 June. (James F. Carpenter, discussion leader): Robert Charles Allen, "Water in epoxy resins. Thermodynamics and swelling"; Bruce Prime, "TG/MS of matrix polymers." (Allan R. Shultz, discussion... Mechanical and Aerospace Engineering Department, Room D-414 Engineering Quadrangle, Princeton, NJ 08544.

Water and Aqueous Solutions
Colby-Sawyer College (S)
S. H. Chen, chairman; M. Newton, vice chairman.
4 August...

...Patey, "Molecular theory of electrolyte solutions." Panel discussion on structure and dynamics of water (A. H. Narten, discussion leader): P. A. Egelstaff, "Quantum correction to the structure of water"; J. C. Dore, "Partial structure factors of water"; J. Teixeira, "X-ray and neutron studies of the structure of high density amorphous ice"; G. E. Walrafen, "Spontaneous Raman scattering from shocked water"; R. Bansil, "Calculations of vibrational spectra of water--neutron, Raman and IR"; A. Geiger, "Computer simulation study of water under negative pressure"; L. Blum, "Analytical pair correlation functions of water from a model of sticky hard spheres"; P. H. E. Meijer, "Theory of global phase diagram of water."

5 August. Electron solvation in water (B. J. Berne, discussion leader): D. Chandler, "Theory of the excess solvated electrons"; M. L. Klein, "Computer simulation of excess electrons in water and other polar solvents"; W. Robinson, "Experiments on excess solvated electrons in water." High pressure high temperature aqueous solutions (J. Wheeler, discussion leader): J. V. H. Sengers, "Aqueous solutions near the critical point of water"; R. H. Wood, "Thermodynamic properties--experimental measurements and theoretical interpretations."

6 August. Structure and dynamics of water near interfaces (W. Drost-Hansen, discussion leader): B. Halle, "Dynamics of water near interfaces"; B. Egberts, "The structure of water near bilayer interface"; G. Torrie, "Structure of water near charge interface." Large-scale computer simulations in aqueous solutions (L. Pratt, discussion leader): W. L. Jorgensen, "Theoretical studies of reactions in water"; J. A. McCammon, "Ligand bindings in aqueous solutions."

7 August. Water macromolecule interactions (J. L. Finney, discussion leader): M. Teeter, "Water in high resolution structure of crystalline protein crambin"; H. Savage, "Repulsive regularities of water structure in crystal hydrates"; G. L. Quigly, "Solvent environment ...Micelles, polyelectrolytes and microemulsions (S. H. Chen, discussion leader): J. Huang, "Properties of water in reverse micelles"; M. Drifford, "Polyelectrolytes in aqueous solutions--charge, mobility and structure"; D. F. Evans, "The...

```
?  d s
Set     Items   Description
S1        453   S CYCLIC(W)DINUCLEOTIDE(W)C-DI-GMP OR 3',5'-CYCLIC MONOPHOSPHATE OR
CYCLIC(W)BIS(W)(3'5')(W)DIGUANYLIC ACID OR CYCLIC(W)DIGUANYLIC(W)ACID OR CGPGP OR
C-GPGP OR C-DI-GMP
S2        562   S S1 OR CYCLIC(W)DIGUANYLATE
S3         33   S S2 AND (WATER OR SALINE OR PBS OR SUSPENSION)
S4         29   RD  (unique items)

?  s s2 and pharmaceutical
          562   S2
      1024162   PHARMACEUTICAL
S5          1   S S2 AND PHARMACEUTICAL

?  t s5/3,k/1
>>>W:  KWIC option is not available in file(s): 399
 5/3,K/1 (Item 1 from file: 34)  Links
SciSearch(R) Cited Ref Sci
(c) 2007 The Thomson Corp. All rights reserved.
01490895   Genuine Article#: HD018   No. References: 64
PHOSPHOROTHIOATE OLIGONUCLEOTIDES - CHEMISTRY, PURIFICATION, ANALYSIS, SCALE-UP AND
FUTURE-DIRECTIONS

Author: ZON G; GEISER TG
Corporate Source: APPL BIOSYST INC,THERAPEUT GRP,400 LINCOLN CTR DR/FOSTER
CITY//CA/94404
Journal: ANTI-CANCER DRUG DESIGN , 1991 , V 6 , N6 ( DEC ) , P 539-568
Language: ENGLISH   Document Type: ARTICLE   ( Abstract Available )
Abstract: ...comprehensive comparative analysis of solid-phase and solution
processes for manufacturing phosphorothioate oligonucleotides as bulk pharmaceutical
compounds for clinical evaluation. A prospective view of the future is offered with
the hope...
Research Fronts: ...THE H-PHOSPHONATE APPROACH; NATURAL DNA; REGULATION OF
GENE-EXPRESSION)
 90-3372 001 (CELLULOSE SYNTHASE; CYCLIC DIGUANYLIC ACID REGULATORY SYSTEM; HYPHAL
CELL-WALL; CONGO RED)
 90-5147 001 (PHOSPHOROTHIOATE ANALOGS; AUTOLYTIC PROCESSING REACTION...



?  d s
Set     Items   Description
S1        453   S CYCLIC(W)DINUCLEOTIDE(W)C-DI-GMP OR 3',5'-CYCLIC MONOPHOSPHATE OR
CYCLIC(W)BIS(W)(3'5')(W)DIGUANYLIC ACID OR CYCLIC(W)DIGUANYLIC(W)ACID OR CGPGP OR
C-GPGP OR C-DI-GMP
S2        562   S S1 OR CYCLIC(W)DIGUANYLATE
S3         33   S S2 AND (WATER OR SALINE OR PBS OR SUSPENSION)
S4         29   RD  (unique items)
S5          1   S S2 AND PHARMACEUTICAL

?  s s2 not py>2003
Processing
Processing
>>>W:  One or more prefixes are unsupported
  or undefined in one or more files.
          562   S2
     29793080   PY>2003
S6        252   S S2 NOT PY>2003

?  rd
>>>W:  Duplicate detection is not supported for File 393.
Duplicate detection is not supported for File 391.
```

Records from unsupported files will be retained in the RD set.
S7 131 RD (UNIQUE ITEMS)

? t s7/3,k/1-131
>>>W: KWIC option is not available in file(s): 399
7/3,K/1 (Item 1 from file: 5) Links
Biosis Previews(R)

17749862 Biosis No.: 200400120619
Application of comparative genomics in the identification and analysis of novel families of membrane-associated receptors in bacteria.

Author: Anantharaman Vivek (Reprint); Aravind L
Author Address: National Center for Biotechnology Information, National Library of Medicine, National Institutes of Health, Bethesda, MD, 20894, USA**USA
Author E-mail Address: ananthar@ncbi.nlm.nih.gov; aravind@ncbi.nlm.nih.gov
Journal: BMC Genomics 4 (34 Cited October 17, 2003): 12 August, 2003 2003
Medium: online
ISSN: 1471-2164 _(ISSN online)
Document Type: Article
Record Type: Abstract
Language: English

Abstract: ...of signaling domains, which suggest that they are likely to transduce signals via cyclic AMP, cyclic diguanylate, histidine phosphorylation, dephosphorylation, and through direct interactions with DNA. The second family of bacterial 7...
DESCRIPTORS:
Chemicals & Biochemicals: ...cyclic diguanylate;

7/3,K/2 (Item 2 from file: 5) Links
Fulltext available through: USPTO Full Text Retrieval Options
Biosis Previews(R)

17511119 Biosis No.: 200300466730
A facile synthesis of cyclic bis(3'fwdarw5')diguanylic acid.

Author: Hayakawa Yoshihiro (Reprint); Nagata Reiko; Hirata Akiyoshi; Hyodo Mamoru; Kawai Rie
Author Address: Laboratory of Bioorganic Chemistry, Graduate School of Information Science, Nagoya University, Chikusa, Nagoya, 464-8601, Japan**Japan
Author E-mail Address: yoshi@info.human.nagoya-u.ac.jp
Journal: Tetrahedron 59 (34): p 6465-6471 18 August, 2003 2003
Medium: print
ISSN: 0040-4020 _(ISSN print)
Document Type: Article
Record Type: Abstract
Language: English

Abstract: ...paper describes a new method for synthesizing biologically important cyclic bis(3'fwdarw5')diguanylic acid (cGpGp) in a higher yield than that of the existing synthetic method. In the new synthesis... ...at once by the organopalladium-catalyzed reaction under neutral conditions. Thus, deprotection of the protected cGpGp precursor was achieved in the present synthesis in a shorter step and under milder conditions...
DESCRIPTORS:
Chemicals & Biochemicals: ...cyclic bis(3'-5')diguanylic acid {cGpGp}--

7/3,K/3 (Item 3 from file: 5) Links
Fulltext available through: USPTO Full Text Retrieval Options
Biosis Previews(R)

16992036   Biosis No.: 200200585547
Characterization of the novel type photoreceptor from Rhodobacter sphaeroides

Author: Tarutina M (Reprint); Ryjenkov D (Reprint); Ratliff M; Stojiljkovic I; Gomelsky M (Reprint)
Author Address: University of Wyoming, Laramie, WY, USA**USA
Journal: Abstracts of the General Meeting of the American Society for Microbiology 102 p 240 2002 2002
Medium: print
Conference/Meeting: 102nd General Meeting of the American Society for Microbiology Salt Lake City, UT, USA   May 19-23, 2002; 20020519
Sponsor: American Society for Microbiology
ISSN: 1060-2011
Document Type: Meeting; Meeting Abstract
Record Type: Abstract
Language: English

Abstract: ...unique among phytochromes. These domains are anticipated to be involved in synthesis or hydrolysis of cyclic diguanylate, c-di-GMP. Based on domain architecture we predict that BphG is involved in the...
DESCRIPTORS:
 Chemicals & Biochemicals: bacterial phytochrome cyclic diguanylate {BphG} {bacterial phytochrome c-di-GMP... ...cyclic diguanylate {c-di-GMP
Gene Name: Rhodobacter sphaeroides bphG gene (Purple Nonsulfur Bacteria) {Rhodobacter sphaeroides bacterial phytochrome cyclic diguanylate gene...

 7/3,K/4 (Item 4 from file: 5) Links
   Fulltext available through: USPTO Full Text Retrieval Options
Biosis Previews(R)

16343056   Biosis No.: 200100514895
Novel domains of the prokaryotic two-component signal transduction systems

Author: Galperin Michael Y (Reprint); Nikolskaya Anastasia N; Koonin Eugene V
Author Address: National Center for Biotechnology Information, National Library of Medicine, National Institutes of Health, Bethesda, MD, 20894, USA**USA
Journal: FEMS Microbiology Letters   203 (1): p 11-21 11 September, 2001 2001
Medium: print
ISSN: 0378-1097
Document Type: Article; Literature Review
Record Type: Abstract
Language: English

Abstract: ...remain obscure; they may include transformations of novel signal molecules, such as the recently identified cyclic diguanylate . Recent experimental data provide the first direct evidence of the participation of these domains in...
DESCRIPTORS:
 Chemicals & Biochemicals: ...cyclic diguanylate;

 7/3,K/5 (Item 5 from file: 5) Links
   Fulltext available through: USPTO Full Text Retrieval Options
Biosis Previews(R)

14876215   Biosis No.: 199900135875
Elevated expression of the CD4 receptor and cell cycle arrest are induced in Jurkat cells by treatment with the novel cyclic dinucleotide 3',5'- cyclic diguanylic acid

Author: Steinberger Osnat; Lapidot Ziva; Ben-Ishai Zvi; Amikam Dorit (Reprint)
Author Address: Mol. Oncol. Lab., Rambam Med. Cent., Rappaport Inst. Med. Sci., P.O. Box 9602, Haifa 31096, Israel**Israel

Journal: FEBS Letters 444 (1): p 125-129 Feb. 5, 1999 1999
Medium: print
ISSN: 0014-5793
Document Type: Article
Record Type: Abstract
Language: English
...arrest are induced in Jurkat cells by treatment with the novel cyclic dinucleotide 3',5'-cyclic diguanylic acid

Abstract: The effect of the novel, naturally occurring nucleotide cyclic diguanylic acid (c-di-GMP) on the lymphoblastoid CD4+ Jurkat cell line was studied. When exposed to...
DESCRIPTORS:
Chemicals & Biochemicals: cyclic dinucleotide 3',5'-cyclic diguanylic acid

7/3,K/6 (Item 6 from file: 5) Links
Fulltext available through: USPTO Full Text Retrieval Options
Biosis Previews(R)

14653373 Biosis No.: 199800447620
Three cdg operons control cellular turnover of cyclic Di-GMP in Acetobacter xylinum: Genetic organization and occurrence of conserved domains in isoenzymes

Author: Tal Rony; Wong Hing C; Calhoon Roger; Gelfand David; Fear Anna Lisa; Volman Gail; Mayer Raphael; Ross Peter; Amikam Dorit; Weinhouse Haim; Cohen Avital ; Sapir Shai; Ohana Patricia; Benziman Moshe (Reprint)
Author Address: Dep. Biological Chem., Inst. Life Sci., Hebrew Univ. Jerusalem, Jerusalem 91904, Israel**Israel
Journal: Journal of Bacteriology 180 (17): p 4416-4425 Sept., 1998 1998
Medium: print
ISSN: 0021-9193
Document Type: Article
Record Type: Abstract
Language: English

Abstract: ...been isolated and found to be located on three distinct yet highly homologous operons for cyclic diguanylate, cdg1, cdg2, and cdg3. Within each cdg operon, a pdeA gene lies upstream of a...

7/3,K/7 (Item 7 from file: 5) Links
Fulltext available through: USPTO Full Text Retrieval Options
Biosis Previews(R)

14175289 Biosis No.: 199799809349
C-di-GMP-binding protein, a new factor regulating cellulose synthesis in Acetobacter xylinum

Author: Weinhouse Haim; Sapir Shai; Amikam Dorit; Shilo Yehudit; Volman Gail; Ohana Patricia; Benziman Moshe (Reprint)
Author Address: Dep. Biological Chem., Inst. Life Sci., Hebrew Univ. Jerusalem, Givat Ram, Jerusalem 91904, Israel**Israel
Journal: FEBS Letters 416 (2): p 207-211 1997 1997
ISSN: 0014-5793
Document Type: Article
Record Type: Abstract
Language: English

Abstract: A protein which specifically binds cyclic diguanylic acid (c-di-GMP), the reversible allosteric activator of the membrane-bound cellulose synthase system of...

7/3,K/8 (Item 8 from file: 5) Links
Fulltext available through: USPTO Full Text Retrieval Options
Biosis Previews(R)

13092138 Biosis No.: 199698559971
The novel cyclic dinucleotide 3'-5' cyclic diguanylic acid binds to p21-ras and enhances DNA synthesis but not cell replication in the Molt 4 cell line

Author: Amikam Dorit (Reprint); Steinberger Osnat; Shkolnik Tamar; Ben-Ishai Zvi
Author Address: Molecular Genetics Unit, Rambam Med. Cent., Haifa, Israel**Israel
Journal: Biochemical Journal 311 (3): p 921-927 1995 1995
ISSN: 0264-6021
Document Type: Article
Record Type: Abstract
Language: English
The novel cyclic dinucleotide 3'-5' cyclic diguanylic acid binds to p21-ras and enhances DNA synthesis but not cell replication in the Molt...

Abstract: 1. The effect of the novel, naturally occurring nucleotide 3'-5' cyclic diguanylic acid (c-di-GMP) on the lymphoblastoid Molt 4 cell line was studied. When exposed to...

7/3,K/9 (Item 9 from file: 5) Links
Fulltext available through: USPTO Full Text Retrieval Options
Biosis Previews(R)

12020377 Biosis No.: 199497041662
Molecular structure of cyclic diguanylic acid at 1 A resolution of two crystal forms: Self-association, interactions with metal ion planar dyes and modeling studies

Author: Guan Yue; Gao Yi-Gui; Liaw Yen-Chywan; Robinson Howard; Wang Andrew H-J (Reprint)
Author Address: Div. Biophyiscs, Univ. Ill. at Urbana-Champaign, Urbana, IL 61801, USA**USA
Journal: Journal of Biomolecular Structure and Dynamics 11 (2): p 253-276 1993 1993
ISSN: 0739-1102
Document Type: Article
Record Type: Abstract
Language: English
Molecular structure of cyclic diguanylic acid at 1 A resolution of two crystal forms: Self-association, interactions with metal ion planar...

7/3,K/10 (Item 10 from file: 5) Links
Fulltext available through: USPTO Full Text Retrieval Options
Biosis Previews(R)

10925015 Biosis No.: 199242027906
THE PLANT CELL WALL STRUCTURE FUNCTION AND BIOSYNTHESIS

Author: DELMER D P (Reprint); SHEDLEZTKY E; SHMUEL M; TRAININ T; AMOR Y; ANDRAWIS A ; BENZIMAN M; MAYER R; SOLOMON M; GONEN L
Author Address: HEBREW UNIV, DEP BOT, INST LIFE SCI, JERUSALEM 91904, ISRAEL**ISRAEL

Journal: Biological Chemistry Hoppe-Seyler 372 (9): p 643-644 1991
Conference/Meeting: FALL CONFERENCE OF THE SOCIETY FOR BIOLOGICAL CHEMISTRY, BAYREUTH, GERMANY, SEPTEMBER 16-18, 1991. BIOL CHEM HOPPE-SEYLER.
ISSN: 0177-3593
Document Type: Meeting

Record Type: Citation
Language: ENGLISH
Descriptors: ABSTRACT TOMATO COTTON CYCLIC DIGUANYLIC ACID CELLULOSE SYNTHASE GENE CLONING

7/3,K/11 (Item 11 from file: 5) Links
Fulltext available through: USPTO Full Text Retrieval Options
Biosis Previews(R)

10894935 Biosis No.: 199192140706
EVIDENCE FOR A CYCLIC DIGUANYLIC ACID-DEPENDENT CELLULOSE SYNTHASE IN PLANTS

Author: AMOR Y (Reprint); MAYER R; BENZIMAN M; DELMER D
Author Address: DEP BOT, INST LIFE SCI, HEBREW UNIV JERUSALEM, JERUSALEM 91904, ISRAEL** ISRAEL
Journal: Plant Cell 3 (9): p 989-996 1991
ISSN: 1040-4651
Document Type: Article
Record Type: Abstract
Language: ENGLISH
EVIDENCE FOR A CYCLIC DIGUANYLIC ACID-DEPENDENT CELLULOSE SYNTHASE IN PLANTS

Abstract: ...toward detecting polypeptides involved in this process. The uniqueness of the structure and function of cyclic diguanylic acid (c-di-GMP) as an activator of the cellulose synthase of the bacterium Acetobacter xylinum...

7/3,K/12 (Item 12 from file: 5) Links
Fulltext available through: USPTO Full Text Retrieval Options
Biosis Previews(R)

10883563 Biosis No.: 199192129334
CYCLIC DIGUANYLIC ACID STIMULATES 1 4-BETA GLUCAN SYNTHASE FROM SAPROLEGNIA-MONOICA

Author: GIRARD V (Reprint); FEVRE M; MAYER R; BENZIMAN M
Author Address: LABORATOIRE DE BIOLOGIE CELLULAIRE FONGIQUE, UMR CNRS 106, UNIVERSITE LYON I, 43 BD 11 NOVEMBRE 1918, 69622 VILLEURBANNE CEDEX, FRANCE**FRANCE
Journal: FEMS Microbiology Letters 82 (3): p 293-296 1991
ISSN: 0378-1097
Document Type: Article
Record Type: Abstract
Language: ENGLISH
CYCLIC DIGUANYLIC ACID STIMULATES 1 4-BETA GLUCAN SYNTHASE FROM SAPROLEGNIA-MONOICA

Abstract: ...activity, but not 1,3-.beta.-glucan-synthase activity, from Saprolegnia monoica was stimulated by cyclic-diguanylic acid, an immediate activator of Acetobacter xylinum cellulose synthase. This activator, which increased the Vmax without...

7/3,K/13 (Item 13 from file: 5) Links
Fulltext available through: USPTO Full Text Retrieval Options
Biosis Previews(R)

10822560 Biosis No.: 199192068331
POLYPEPTIDE COMPOSITION OF BACTERIAL CYCLIC DIGUANYLIC ACID-DEPENDENT CELLULOSE SYNTHASE AND THE OCCURRENCE OF IMMUNOLOGICALLY CROSSREACTING PROTEINS IN HIGHER PLANTS

Author: MAYER R (Reprint); ROSS P; WEINHOUSE H; AMIKAM D; VOLMAN G; OHANA P; CALHOON R D; WONG H C; EMERICK A W; BENZIMAN M
Author Address: DEP BIOL CHEM, INST LIFE SCI, HEBREW UNIV JERUSALEM, JERUSALEM

91904, ISRAEL**ISRAEL
Journal: Proceedings of the National Academy of Sciences of the United States of America 88 (12): p 5472-5476 1991
ISSN: 0027-8424
Document Type: Article
Record Type: Abstract
Language: ENGLISH
POLYPEPTIDE COMPOSITION OF BACTERIAL CYCLIC DIGUANYLIC ACID-DEPENDENT CELLULOSE SYNTHASE AND THE OCCURRENCE OF IMMUNOLOGICALLY CROSSREACTING PROTEINS IN HIGHER PLANTS

Abstract: To comprehend the catalytic and regulatory mechanism of the cyclic diguanylic acid (c-di-GMP)-dependent cellulose synthase of Acetobacter xylinum and its relatedness to similar enzymes...

7/3,K/14 (Item 14 from file: 5) Links
Fulltext available through: USPTO Full Text Retrieval Options
Biosis Previews(R)

10637566 Biosis No.: 199191020457
THE CYCLIC DIGUANYLIC ACID REGULATORY SYSTEM OF CELLULOSE SYNTHESIS IN ACETOBACTER-XYLINUM CHEMICAL SYNTHESIS AND BIOLOGICAL ACTIVITY OF CYCLIC NUCLEOTIDE DIMER TRIMER AND PHOSPHOTHIOATE DERIVATIVES

Author: ROSS P (Reprint); MAYER R; WEINHOUSE H; AMIKAM D; HUGGIRAT Y; BENZIMAN M; DE VROOM E; FIDDER A; DE PAUS P; ET AL
Author Address: DEP BIOLOGICAL CHEM, INST LIFE SCI, HEBREW UNIV JERUSALEM, 91904 JERUSALEM, ISRAEL**ISRAEL
Journal: Journal of Biological Chemistry 265 (31): p 18933-18943 1990
ISSN: 0021-9258
Document Type: Article
Record Type: Abstract
Language: ENGLISH
THE CYCLIC DIGUANYLIC ACID REGULATORY SYSTEM OF CELLULOSE SYNTHESIS IN ACETOBACTER-XYLINUM CHEMICAL SYNTHESIS AND BIOLOGICAL ACTIVITY OF CYCLIC...

Abstract: An unusual compound, cyclic-bis(3'-.fwdarw.5') diguanylic acid (c-di-GMP or cGpGp), is involved in the regulation of cellulose synthesis in the bacterium Acetobacter xylinum. This cyclic... ...activators undergo the Ca2+-inhibited degradation reaction. The order of affinities for synthase activators is cGpGp .apprxeq. cdGpGp .apprxeq. cGp(S)Gp (S-diastereomer) > cIpGp > cdGpdGp > cXpGp > cIpIp > cGp(S)Gp...

7/3,K/15 (Item 15 from file: 5) Links
Fulltext available through: USPTO Full Text Retrieval Options
Biosis Previews(R)

10632601 Biosis No.: 199191015492
GENETIC ORGANIZATION OF THE CELLULOSE SYNTHASE OPERON IN ACETOBACTER-XYLINUM

Author: WONG H C (Reprint); FEAR A L; CALHOON R D; EICHINGER G H; MAYER R; AMIKAM D ; BENZIMAN M; GELFAND D H; MEADE J H; ET AL
Author Address: DEP MICROBIAL GENETICS, CETUS CORPORATION, EMERYVILLE, CALIF 94608, USA** USA
Journal: Proceedings of the National Academy of Sciences of the United States of America 87 (20): p 8130-8134 1990
ISSN: 0027-8424
Document Type: Article
Record Type: Abstract
Language: ENGLISH

Abstract: ...vivo, even though they had the capacity to make all the necessary metabolic precursors and cyclic diguanylic acid, the activator of cellulose synthase, and exhibit cellulose synthase activity in vitro. When the entire...

7/3,K/16 (Item 16 from file: 5) Links
Fulltext available through: USPTO Full Text Retrieval Options
Biosis Previews(R)

10230366 Biosis No.: 199090014845
ATOMIC-RESOLUTION STRUCTURE OF THE CELLULOSE SYNTHASE REGULATOR CYCLIC DIGUANYLIC ACID

Author: EGLI M (Reprint); GESSNER R V; WILLIAMS L D; QUIGLEY G J; VAN DER MAREL G A ; VAN BOOM J H; RICH A; FREDERICK C A
Author Address: DEP BIOL, MASS INST TECHNOL, CAMBRIDGE, MASS 02139, USA**USA
Journal: Proceedings of the National Academy of Sciences of the United States of America 87 (8): p 3235-3239 1990
ISSN: 0027-8424
Document Type: Article
Record Type: Abstract
Language: ENGLISH
ATOMIC-RESOLUTION STRUCTURE OF THE CELLULOSE SYNTHASE REGULATOR CYCLIC DIGUANYLIC ACID

Abstract: Cyclic diguanylic acid acts as a regulator for cellulose synthase activity in the bacterium Acetobacter xylinum. We report ...

7/3,K/17 (Item 17 from file: 5) Links
Fulltext available through: USPTO Full Text Retrieval Options
Biosis Previews(R)

10212765 Biosis No.: 199089130656
IDENTIFICATION OF THE URIDINE 5'-DIPHOSPHOGLUCOSE UDP-GLC BINDING SUBUNIT OF CELLULOSE SYNTHASE IN ACETOBACTER-XYLINUM USING THE PHOTOAFFINITY PROBE 5 AZIDO-UDP-GLC

Author: LIN F C (Reprint); BROWN R M JR; DRAKE R R JR; HALEY B E
Author Address: DEP BOTANY, UNIV TEX AUSTIN, AUSTIN, TEX 78713-7640, USA**USA
Journal: Journal of Biological Chemistry 265 (9): p 4782-4784 1990
ISSN: 0021-9258
Document Type: Article
Record Type: Abstract
Language: ENGLISH

Abstract: ...5-azido-UDP-Glc is stimulated by the cellulose synthase activator, bis-(3' .fwdarw. 5') cyclic diguanylic acid. Addition of increasing amounts of UDP-Glc prevents photolabeling of the 83-kDa polypeptide. The...

7/3,K/18 (Item 18 from file: 5) Links
Fulltext available through: USPTO Full Text Retrieval Options
Biosis Previews(R)

10124423 Biosis No.: 199089042314
CYCLIC DIGUANYLIC ACID AND CELLULOSE SYNTHESIS IN AGROBACTERIUM-TUMEFACIENS

Author: AMIKAM D (Reprint); BENZIMAN M
Author Address: DEP BIOL CHEM, INST LIFE SCI, HEBREW UNIV JERUSALEM, 91904 JERUSALEM, ISRAEL**ISRAEL
Journal: Journal of Bacteriology 171 (12): p 6649-6655 1989
ISSN: 0021-9193

Document Type: Article
Record Type: Abstract
Language: ENGLISH
CYCLIC DIGUANYLIC ACID AND CELLULOSE SYNTHESIS IN AGROBACTERIUM-TUMEFACIENS

Abstract: The occurrence of the novel regulatory nucleotide bis(3',5')-cyclic diguanylic acid (c-di-GMP) and its relation to cellulose biogenesis in the plant pathogen Agrobacterium tumefaciens...

7/3,K/19 (Item 19 from file: 5) Links
Fulltext available through: USPTO Full Text Retrieval Options
Biosis Previews(R)

09983427 Biosis No.: 199039036816
CYCLIC DIGUANYLIC ACID BEHAVES AS A HOST MOLECULE FOR PLANAR INTERCALATORS

Author: LIAW Y-C (Reprint); GAO Y-G; ROBINSON H; SHELDRICK G M; SLIEDREGT L A J M; VAN DER MAREL G A; VAN BOOM J H; WANG A H-J
Author Address: DEP PHYSIOLOGY BIOPHYSICS, UNIVERSITY ILLINOIS AT URBANA-CHAMPAIGN, URBANA, ILL 61801, USA**USA
Journal: Febs Letters 264 (2): p 223-227 1990
ISSN: 0014-5793
Document Type: Article
Record Type: Citation
Language: ENGLISH
CYCLIC DIGUANYLIC ACID BEHAVES AS A HOST MOLECULE FOR PLANAR INTERCALATORS

7/3,K/20 (Item 20 from file: 5) Links
Fulltext available through: USPTO Full Text Retrieval Options
Biosis Previews(R)

08334468 Biosis No.: 198732063359
REGULATION OF CELLULOSE SYNTHESIS IN ACETOBACTER-XYLINUM BY CYCLIC DIGUANYLIC ACID

Author: ROSS P (Reprint); WEINHOUSE H; ALONI Y; MICHAELI D; WEINBERGER-OHANA P; MAYER R; BRAUN S; DE VROOM E; VAN DER MAREL G A; ET AL
Author Address: INQ: M BENZIMAN, DEP BIOL CHEM, INST LIFE SCI, HEBREW UNIV JERUSALEM, 91904 JERUSALEM, ISRAEL**ISRAEL
Journal: Nature (London) 325 (6101): p 279-281 1987
ISSN: 0028-0836
Document Type: Article
Record Type: Citation
Language: ENGLISH
REGULATION OF CELLULOSE SYNTHESIS IN ACETOBACTER-XYLINUM BY CYCLIC DIGUANYLIC ACID

7/3,K/21 (Item 21 from file: 5) Links
Fulltext available through: USPTO Full Text Retrieval Options
Biosis Previews(R)

05962032 Biosis No.: 198069076019
STUDIES ON TRANSFER RNA AND RELATED COMPOUNDS 26. CIRCULAR DICHROIC PROPERTIES OF CYCLIC OLIGO RIBO NUCLEOTIDES AND THEIR LINEAR COUNTERPARTS

Author: MARKHAM A F (Reprint); NAKAGAWA E; OHTSUKA E; IKEHARA M
Author Address: FAC PHARM SCI, OSAKA UNIV, OSAKA 565, JPN**JAPAN
Journal: Biopolymers 19 (2): p 285-296 1980
ISSN: 0006-3525
Document Type: Article
Record Type: Abstract
Language: ENGLISH

Abstract: The CD [circular dichroism] spectra of cUpUp [cyclic diuridylic acid], cCpCp [cyclic dicytidylic acid], and cGpGp[cyclic diguanidylic acid] derived from DCC-catalyzed polymerization of the relevant protected ribonucleoside 3'-phosphates...

7/3,K/22 (Item 1 from file: 24) Links
Fulltext available through: USPTO Full Text Retrieval Options
CSA Life Sciences Abstracts

0002002804 IP Accession No: 4571546
Cellulose biosynthesis: Exciting times for a difficult field of study

Delmer, DP Section of Plant Biology, University of California Davis, Davis, California 95616, USA, [mailto:dpdelmer@ucdavis.edu]
Annual Review of Plant Physiology and Plant Molecular Biology , v 50 , p 245-276 , 1999
Publication Date: 1999

Document Type: Journal Article
Record Type: Abstract
Language: English
Summary Language: English
ISSN: 1040-2519
File Segment: Genetics Abstracts

Abstract:
...of cellulose. In the bacterium Acetobacter xylinum, discovery of the activator of the cellulose synthase, cyclic diguanylic acid, opened the way for obtaining high rates of in vitro synthesis of cellulose. This, in...

Descriptors: Reviews; Cellulose synthase (GDP-forming); Cellulose synthase (UDP-forming); cellulose; cyclic diguanylic acid; Acetobacter xylinum

7/3,K/23 (Item 2 from file: 24) Links
Fulltext available through: USPTO Full Text Retrieval Options
CSA Life Sciences Abstracts

0001362843 IP Accession No: 3573995
Molecular structure of cyclic diguanylic acid at 1 angstrom resolution of two crystal forms: Self-association, interactions with metal ion/planar dyes and modeling studies

Guan, Yue; Gao, Yi-Gui; Liaw, Yen-Chywan; Robinson, H; Wang, AH-J* Div. Biophys. and Dep. Cell & Struct. Biol., Univ. Illinois, Urbana, IL 61801, USA
Journal of Biomolecular Structure and Dynamics , v 11 , n 2 , p 253-276 , 1993
Addl. Source Info: Journal of Biomolecular Structure and Dynamics [J. BIOMOL. STRUCT. DYN.], vol. 11, no. 2, pp. 253-276, 1993
Publication Date: 1993

Document Type: Journal Article
Record Type: Abstract
Language: English
Summary Language: English
ISSN: 0739-1102
File Segment: Nucleic Acids Abstracts
Molecular structure of cyclic diguanylic acid at 1 angstrom resolution of two crystal forms: Self-association, interactions with metal ion/planar...

Identifiers: cyclic diguanylic acid

7/3,K/24 (Item 1 from file: 34) Links
Fulltext available through: USPTO Full Text Retrieval Options
SciSearch(R) Cited Ref Sci

12126298 Genuine Article#: 733TH No. References: 55
Identification of genes involved in the switch between the smooth and rugose phenotypes of Vibrio cholerae

Author: Rashid MH; Rajanna C; All A; Karaolis DKR (REPRINT)
Corporate Source: Univ Maryland,Sch Med, Dept Epidemiol & Prevent Med,Baltimore//MD/21201 (REPRINT); Univ Maryland,Sch Med, Dept Epidemiol & Prevent Med,Baltimore//MD/21201; Univ Dhaka,Dept Microbiol,Dhaka 1000//Bangladesh/
Journal: FEMS MICROBIOLOGY LETTERS , 2003 , V 227 , N1 (OCT 10) , P 113-119
ISSN: 0378-1097 Publication date: 20031010
Publisher: ELSEVIER SCIENCE BV , PO BOX 211, 1000 AE AMSTERDAM, NETHERLANDS
Language: English Document Type: ARTICLE (ABSTRACT AVAILABLE)
Identifiers-- ...CYCLIC DIGUANYLIC ACID; O1 EL-TOR; ESCHERICHIA-COLI; ACETOBACTER-XYLINUM; CELLULOSE SYNTHESIS; EXOPOLYSACCHARIDE PRODUCTION; POLYSACCHARIDE PRODUCTION; VIRULENCE DETERMINANTS

7/3,K/25 (Item 2 from file: 34) Links
Fulltext available through: USPTO Full Text Retrieval Options
SciSearch(R) Cited Ref Sci

11943839 Genuine Article#: 712DH No. References: 22
A facile synthesis of cyclic bis(3 '-> 5 ')diguanylic acid

Author: Hayakawa Y (REPRINT) ; Nagata R; Hirata A; Hyodo M; Kawai R
Corporate Source: Nagoya Univ,Grad Sch Informat Sci, Bioorgan Chem Lab,Nagoya/Aichi 4648601/Japan/ (REPRINT); Nagoya Univ,Grad Sch Informat Sci, Bioorgan Chem Lab,Nagoya/Aichi 4648601/Japan/; Nagoya Univ,Grad Sch Human Informat, Bioorgan Chem Lab,Nagoya/Aichi 4648601/Japan/
Journal: TETRAHEDRON , 2003 , V 59 , N34 (AUG 18) , P 6465-6471
ISSN: 0040-4020 Publication date: 20030818
Publisher: PERGAMON-ELSEVIER SCIENCE LTD , THE BOULEVARD, LANGFORD LANE, KIDLINGTON, OXFORD OX5 1GB, ENGLAND
Language: English Document Type: ARTICLE (ABSTRACT AVAILABLE)
Abstract: ...paper describes a new method for synthesizing biologically important cyclic bis(3'-->5')diguanylic acid (cGpGp) in a higher yield than that of the existing synthetic method. In the new synthesis... ...at once by the organopalladium-catalyzed reaction under neutral conditions. Thus, deprotection of the protected cGpGp precursor was achieved in the present synthesis in a shorter step and under milder conditions...

7/3,K/26 (Item 3 from file: 34) Links
Fulltext available through: USPTO Full Text Retrieval Options
SciSearch(R) Cited Ref Sci

11457096 Genuine Article#: 652HF No. References: 51
Role of the GGDEF regulator PleD in polar development of Caulobacter crescentus

Author: Aldridge P; Paul R; Goymer P; Rainey P; Jenal U (REPRINT)
Corporate Source: Univ Basel,Div Mol Microbiol, Biozentrum,Klingelbergstr 70/CH-4056 Basel//Switzerland/ (REPRINT); Univ Basel,Div Mol Microbiol, Biozentrum,CH-4056 Basel//Switzerland/; Univ Washington,Dept Microbiol,Seattle//WA/98195; Univ Oxford,Dept Plant Sci,Oxford OX1 3RB//England/; Univ Auckland,Sch Biol Sci,Auckland 1//New Zealand/
Journal: MOLECULAR MICROBIOLOGY , 2003 , V 47 , N6 (MAR) , P 1695-1708
ISSN: 0950-382X Publication date: 20030300
Publisher: BLACKWELL PUBLISHING LTD , 9600 GARSINGTON RD, OXFORD OX4 2DG, OXON,

ENGLAND
Language: English Document Type: ARTICLE (ABSTRACT AVAILABLE)
Identifiers-- ...HISTIDINE PROTEIN-KINASE; SIGNAL-TRANSDUCTION SYSTEMS; CYCLIC DIGUANYLIC ACID; BACTERIAL-CELL CYCLE; RESPONSE REGULATOR; ACETOBACTER-XYLINUM; CELLULOSE SYNTHESIS; ESCHERICHIA-COLI; SALMONELLA-TYPHIMURIUM; DOMAIN

7/3,K/27 (Item 4 from file: 34) Links
  Fulltext available through: USPTO Full Text Retrieval Options
SciSearch(R) Cited Ref Sci

11086626 Genuine Article#: 604EJ No. References: 34
BLUF: a novel FAD-binding domain involved in sensory transduction in microorganisms

Author: Gomelsky M (REPRINT) ; Klug G
Corporate Source: Univ Wyoming,Dept Mol Biol,Laramie//WY/82071 (REPRINT); Univ Wyoming,Dept Mol Biol,Laramie//WY/82071; Univ Giessen,Inst Mikrobiol & Mol Biol,D-35392 Giessen//Germany/
Journal: TRENDS IN BIOCHEMICAL SCIENCES , 2002 , V 27 , N10 (OCT) , P 497-500
ISSN: 0968-0004 Publication date: 20021000
Publisher: ELSEVIER SCIENCE LONDON , 84 THEOBALDS RD, LONDON WC1X 8RR, ENGLAND
Language: English Document Type: ARTICLE (ABSTRACT AVAILABLE)
Identifiers-- ...PHOTOACTIVE YELLOW PROTEIN; CYCLIC DIGUANYLIC ACID; PHOTOSYNTHESIS GENE-EXPRESSION; FLAVIN ADENINE-DINUCLEOTIDE; ACETOBACTER-XYLINUM; CELLULOSE SYNTHESIS; ESCHERICHIA-COLI; GGDEF DOMAIN; REDOX...

7/3,K/28 (Item 5 from file: 34) Links
  Fulltext available through: USPTO Full Text Retrieval Options
SciSearch(R) Cited Ref Sci

10908000 Genuine Article#: 583AP No. References: 50
Recent progress in cellulose biosynthesis

Author: Kimura S (REPRINT) ; Kondo T
Corporate Source: Forestry & Forest Prod Res Inst,Tsukuba/Ibaraki 3058687/Japan/ (REPRINT); Forestry & Forest Prod Res Inst,Tsukuba/Ibaraki 3058687/Japan/
Journal: JOURNAL OF PLANT RESEARCH , 2002 , V 115 , N1120 (AUG) , P 297-302
ISSN: 0918-9440 Publication date: 20020800
Publisher: SPRINGER-VERLAG TOKYO , 3-3-13, HONGO, BUNKYO-KU, TOKYO, 113-0033, JAPAN
Language: English Document Type: ARTICLE (ABSTRACT AVAILABLE)
Identifiers-- ...CYCLIC DIGUANYLIC ACID; SECONDARY CELL-WALL; ACETOBACTER-XYLINUM; AGROBACTERIUM-TUMEFACIENS; CATALYTIC SUBUNIT; SUCROSE SYNTHASE; HIGHER-PLANTS; ARABIDOPSIS; ENDO

7/3,K/29 (Item 6 from file: 34) Links
  Fulltext available through: USPTO Full Text Retrieval Options
SciSearch(R) Cited Ref Sci

10718463 Genuine Article#: 560LT No. References: 44
Molecular biology of cellulose production in bacteria

Author: Romling U (REPRINT)
Corporate Source: Karolinska Inst,Microbiol & Tumorbiol Ctr, MTC,Box 280/S-17177 Stockholm//Sweden/ (REPRINT); GBF,Res Grp Clonal Variabil, Dept Cell Biol & Immunol,D-38124 Braunschweig//Germany/
Journal: RESEARCH IN MICROBIOLOGY , 2002 , V 153 , N4 (MAY) , P 205-212
ISSN: 0923-2508 Publication date: 20020500
Publisher: EDITIONS SCIENTIFIQUES MEDICALES ELSEVIER , 23 RUE LINOIS, 75724 PARIS CEDEX 15, FRANCE
Language: English Document Type: REVIEW (ABSTRACT AVAILABLE)
Abstract: ...phenotypic and genetic levels. Novel regulatory pathways, which involve

the second messenger bis-(3',5') cyclic diguanylic acid and several proteins with the GGDEF domain, participate in the regulation of cellulose biosynthesis. The...
Identifiers-- ...CYCLIC DIGUANYLIC ACID; GMP-BINDING PROTEIN; ACETOBACTER-XYLINUM; AGROBACTERIUM-TUMEFACIENS; SALMONELLA-TYPHIMURIUM; DI-GMP; RHIZOBIUM-LEGUMINOSARUM; AGGREGATIVE BEHAVIOR

7/3,K/30 (Item 7 from file: 34) Links
Fulltext available through: USPTO Full Text Retrieval Options
SciSearch(R) Cited Ref Sci

10295615 Genuine Article#: 510BM No. References: 42
Immunogold Labeling of terminal cellulose-synthesizing complexes

Author: Itoh T (REPRINT) ; Kimura S
Corporate Source: Kyoto Univ,Wood Res Inst,Kyoto 6110011//Japan/ (REPRINT); Kyoto Univ,Wood Res Inst,Kyoto 6110011//Japan/; Forestry & Forest Prod Res Inst,Tsukuba/Ibaraki 3058687/Japan/
Journal: JOURNAL OF PLANT RESEARCH , 2001 , V 114 , N1116 (DEC) , P 483-489
ISSN: 0918-9440 Publication date: 20011200
Publisher: BOTANICAL SOC JAPAN , TOSHIN BUILDING HONGO 2-27-2 BUNKYO-KU, TOKYO, 113, JAPAN
Language: English Document Type: ARTICLE (ABSTRACT AVAILABLE)
Identifiers-- ...CYCLIC DIGUANYLIC ACID; ACETOBACTER-XYLINUM; PLASMA-MEMBRANE; HIGHER-PLANTS; CATALYTIC SUBUNIT; SYNTHASE; BIOSYNTHESIS; GENE; OPERON; IDENTIFICATION

7/3,K/31 (Item 8 from file: 34) Links
Fulltext available through: USPTO Full Text Retrieval Options
SciSearch(R) Cited Ref Sci

10138546 Genuine Article#: 489QV No. References: 22
Genetic data indicate that proteins containing the GGDEF domain possess diguanylate cyclase activity

Author: Ausmees N (REPRINT) ; Mayer R; Weinhouse H; Volman G; Amikam D; Benziman M; Lindberg M
Corporate Source: Swedish Univ Agr Sci,Dept Microbiol, SLU,Box 7025/S-75007 Uppsala//Sweden/ (REPRINT); Swedish Univ Agr Sci,Dept Microbiol, SLU,S-75007 Uppsala//Sweden/; InSight,IL-76121 Rehovot//Israel/; Hebrew Univ Jerusalem,Inst Life Sci, Dept Biol Chem,IL-91904 Jerusalem//Israel/; Tel Hai Acad Coll,Dept Biotechnol,IL-31096 Haifa//Israel/; Rambam Med Ctr,IL-31096 Haifa//Israel/
Journal: FEMS MICROBIOLOGY LETTERS , 2001 , V 204 , N1 (OCT 16) , P 163-167
ISSN: 0378-1097 Publication date: 20011016
Publisher: ELSEVIER SCIENCE BV , PO BOX 211, 1000 AE AMSTERDAM, NETHERLANDS
Language: English Document Type: ARTICLE (ABSTRACT AVAILABLE)

7/3,K/32 (Item 9 from file: 34) Links
Fulltext available through: USPTO Full Text Retrieval Options
SciSearch(R) Cited Ref Sci

10102607 Genuine Article#: 484ZK No. References: 128
Cellulose synthesis: mutational analysis and genomic perspectives using Arabidopsis thaliana

Author: Williamson RE (REPRINT) ; Burn JE; Hocart CH
Corporate Source: Australian Natl Univ,Res Sch Biol Sci, Plant Cell Biol Grp,POB 475/Canberra/ACT 2601/Australia/ (REPRINT); Australian Natl Univ,Res Sch Biol Sci, Plant Cell Biol Grp,Canberra/ACT 2601/Australia/
Journal: CELLULAR AND MOLECULAR LIFE SCIENCES , 2001 , V 58 , N10 (SEP) , P 1475-1490

ISSN: 1420-682X Publication date: 20010900
Publisher: BIRKHAUSER VERLAG AG , VIADUKSTRASSE 40-44, PO BOX 133, CH-4010 BASEL, SWITZERLAND
Language: English Document Type: REVIEW (ABSTRACT AVAILABLE)
Identifiers-- ...CYCLIC DIGUANYLIC ACID; CELL-WALL SYNTHESIS; DE-NOVO SYNTHESIS; STATE C-13 NMR; ACETOBACTER-XYLINUM; HIGHER-PLANTS; SUCROSE

7/3,K/33 (Item 10 from file: 34) Links
Fulltext available through: USPTO Full Text Retrieval Options
SciSearch(R) Cited Ref Sci

10080209 Genuine Article#: 482HL No. References: 30
Effect of molecular sieves in the liquid-phase synthesis of nucleotides via the phosphoramidite method

Author: Hayakawa Y (REPRINT) ; Hirata A; Sugimoto J; Kawai R; Sakakura A; Kataoka M
Corporate Source: Nagoya Univ,Bioorgan Chem Lab, Grad Sch Human Informat, Chikusa Ku,Nagoya/Aichi 4648601/Japan/ (REPRINT); Nagoya Univ,Bioorgan Chem Lab, Grad Sch Human Informat, Chikusa Ku,Nagoya/Aichi 4648601/Japan/
Journal: TETRAHEDRON , 2001 , V 57 , N42 (OCT 15) , P 8823-8826
ISSN: 0040-4020 Publication date: 20011015
Publisher: PERGAMON-ELSEVIER SCIENCE LTD , THE BOULEVARD, LANGFORD LANE, KIDLINGTON, OXFORD OX5 1GB, ENGLAND
Language: English Document Type: ARTICLE (ABSTRACT AVAILABLE)
Identifiers-- ...INTERFERON-TREATED CELLS; CYCLIC DIGUANYLIC ACID; PROTEIN-SYNTHESIS; INTERNUCLEOTIDE LINKAGES; ACETOBACTER-XYLINUM; CELLULOSE SYNTHESIS; AGROCIN 84; INHIBITOR; PHOSMIDOSINE; DERIVATIVES

7/3,K/34 (Item 11 from file: 34) Links
Fulltext available through: USPTO Full Text Retrieval Options
SciSearch(R) Cited Ref Sci

09985563 Genuine Article#: 471ZQ No. References: 36
Localization of c-di-GMP-Binding protein with the linear terminal complexes of Acetobacter xylinum

Author: Kimura S; Chen HP; Saxena IM; Brown RM; Itoh T (REPRINT)
Corporate Source: Kyoto Univ,Wood Res Inst,Kyoto 6110011//Japan/ (REPRINT); Kyoto Univ,Wood Res Inst,Kyoto 6110011//Japan/; Univ Texas,Sch Biol Sci, Sect Mol Genet & Microbiol,Austin//TX/78712
Journal: JOURNAL OF BACTERIOLOGY , 2001 , V 183 , N19 (OCT) , P 5668-5674
ISSN: 0021-9193 Publication date: 20011000
Publisher: AMER SOC MICROBIOLOGY , 1752 N ST NW, WASHINGTON, DC 20036-2904 USA
Language: English Document Type: ARTICLE (ABSTRACT AVAILABLE)
Identifiers-- ...CELLULOSE-SYNTHESIZING COMPLEXES; CYCLIC DIGUANYLIC ACID; PLASMA-MEMBRANE; INVITRO SYNTHESIS; SYNTHASE COMPLEX; HIGHER-PLANTS; CELL-WALLS; VISUALIZATION; BIOSYNTHESIS; MICROFIBRILS

7/3,K/35 (Item 12 from file: 34) Links
Fulltext available through: USPTO Full Text Retrieval Options
SciSearch(R) Cited Ref Sci

09533712 Genuine Article#: 416UJ No. References: 52
Phosphodiesterase A1, a regulator of cellulose synthesis in Acetobacter xylinum, is a heme-based sensor

Author: Chang AL; Tuckerman JR; Gonzalez G; Mayer R; Weinhouse H; Volman G; Amikam D; Benziman M; Gilles-Gonzalez MA (REPRINT)
Corporate Source: Ohio State Univ,Dept Biochem,1060 Carmack Rd/Columbus//OH/43210 (REPRINT); Ohio State Univ,Dept Biochem,Columbus//OH/43210; Ohio State Univ,Dept

Plant Biol,Columbus//OH/43210; Ohio State Univ,Ctr Plant Biotechnol,Columbus//OH/43210; Hebrew Univ Jerusalem,Fac Agr Food & Environm Qual Sci, Otto Warburg Ctr Agr Biotechnol,IL-76100 Rehovot//Israel/; Hebrew Univ Jerusalem,Inst Life Sci, Dept Biol Chem,IL-92904 Jerusalem//Israel/; Tel Hai Acad Coll,Dept Biotechnol,IL-31096 Haifa//Israel/; Rambam Med Ctr,IL-31096 Haifa//Israel/

Journal: BIOCHEMISTRY , 2001 , V 40 , N12 (MAR 27) , P 3420-3426
ISSN: 0006-2960 Publication date: 20010327
Publisher: AMER CHEMICAL SOC , 1155 16TH ST, NW, WASHINGTON, DC 20036 USA
Language: English Document Type: ARTICLE (ABSTRACT AVAILABLE)
Identifiers-- ...CYCLIC DIGUANYLIC ACID; PHOTOACTIVE YELLOW PROTEIN; OXYGEN SENSOR; RHIZOBIUM-MELILOTI; AGROBACTERIUM-TUMEFACIENS; AZORHIZOBIUM-CAULINODANS; RHODOSPIRILLUM-RUBRUM; SIGNAL-TRANSDUCTION

7/3,K/36 (Item 13 from file: 34) Links
Fulltext available through: USPTO Full Text Retrieval Options
SciSearch(R) Cited Ref Sci

09525999 Genuine Article#: 414AY No. References: 35
The multicellular morphotypes of Salmonella typhimurium and Escherichia coli produce cellulose as the second component of the extracellular matrix

Author: Zogaj X; Nimtz M; Rohde M; Bokranz W; Romling U (REPRINT)
Corporate Source: GBF,Div Cell Biol & Immunol,D-38124 Braunschweig//Germany/ (REPRINT); GBF,Div Cell Biol & Immunol,D-38124 Braunschweig//Germany/; GBF,Div Struct Res,D-38124 Braunschweig//Germany/; GBF,Div Microbiol,D-38124 Braunschweig//Germany/
Journal: MOLECULAR MICROBIOLOGY , 2001 , V 39 , N6 (MAR) , P 1452-1463
ISSN: 0950-382X Publication date: 20010300
Publisher: BLACKWELL SCIENCE LTD , P O BOX 88, OSNEY MEAD, OXFORD OX2 0NE, OXON, ENGLAND
Language: English Document Type: ARTICLE (ABSTRACT AVAILABLE)
Identifiers-- ...CYCLIC DIGUANYLIC ACID; AGROBACTERIUM-TUMEFACIENS; AGGREGATIVE BEHAVIOR; ACETOBACTER-XYLINUM; SYNTHASE GENE; BIOSYNTHESIS; STRAINS; POPULATIONS; EXPRESSION; MECHANISM

7/3,K/37 (Item 14 from file: 34) Links
Fulltext available through: USPTO Full Text Retrieval Options
SciSearch(R) Cited Ref Sci

08849779 Genuine Article#: BQ40J No. References: 179
Cellulose microfibrils in plants: Biosynthesis, deposition, and integration into the cell wall

Author: Brett CT (REPRINT)
Corporate Source: UNIV GLASGOW,INST BIOMED & LIFE SCI, PLANT MOL SCI GRP, BOWER BLDG/GLASGOW G12 8QQ/LANARK/SCOTLAND/ (REPRINT)
, 2000 , V 199 , P 161-199
ISSN: 0074-7696 Publication date: 20000000
Publisher: ACADEMIC PRESS INC , 525 B STREET, SUITE 1900, SAN DIEGO, CA 92101-4495INTERNATIONAL REVIEW OF CYTOLOGY-A SURVEY OF CELL BIOLOGY
Series: INTERNATIONAL REVIEW OF CYTOLOGY-A SURVEY OF CELL BIOLOGY
Language: English Document Type: REVIEW
Identifiers-- ...BETA-GLUCAN SYNTHESIS; DEVELOPING COTTON FIBERS; CYCLIC DIGUANYLIC ACID; ACETOBACTER-XYLINUM CELLULOSE; PLASMA-MEMBRANE ROSETTES; TOBACCO BY-2 CELLS; NATIVE CELLULOSE; IN-VITRO; CALLOSE...

7/3,K/38 (Item 15 from file: 34) Links
Fulltext available through: USPTO Full Text Retrieval Options
SciSearch(R) Cited Ref Sci

06857292 Genuine Article#: ZX116 No. References: 27
Control of expression by the cellulose synthase (bcsA) promoter region from Acetobacter xylinum BPR 2001

Author: Nakai T; Moriya A; Tonouchi N; Tsuchida T; Yoshinaga F; Horinouchi S; Sone Y; Mori H; Sakai F; Hayashi T (REPRINT)
Corporate Source: KYOTO UNIV,WOOD RES INST/UJI/KYOTO 611/JAPAN/ (REPRINT); KYOTO UNIV,WOOD RES INST/UJI/KYOTO 611/JAPAN/; BIOPOLYMER RES CO LTD,TAKATSU KU/KAWASAKI/KANAGAWA 213/JAPAN/; UNIV TOKYO,SCH AGR & LIFE SCI, DEPT BIOTECHNOL/TOKYO 113//JAPAN/; OSAKA CITY UNIV,FAC SCI LIVING, DEPT FOOD & NUTR/OSAKA 558//JAPAN/; NAGOYA UNIV,FAC AGR/NAGOYA/AICHI 46401/JAPAN/
Journal: GENE , 1998 , V 213 , N1-2 (JUN 15) , P 93-100
ISSN: 0378-1119 Publication date: 19980615
Publisher: ELSEVIER SCIENCE BV , PO BOX 211, 1000 AE AMSTERDAM, NETHERLANDS
Language: English Document Type: ARTICLE (ABSTRACT AVAILABLE)
Identifiers-- ...CYCLIC DIGUANYLIC ACID; ESCHERICHIA-COLI; OPERON; GENE; BACTERIA; BIOSYNTHESIS; INITIATION; SEQUENCES; ELEMENTS; CLONING

7/3,K/39 (Item 16 from file: 34) Links
Fulltext available through: USPTO Full Text Retrieval Options
SciSearch(R) Cited Ref Sci

06778063 Genuine Article#: ZR120 No. References: 32
Improved production of bacterial cellulose and its application potential

Author: Vandamme EJ (REPRINT) ; DeBaets S; Vanbaelen A; Joris K; DeWulf P
Corporate Source: STATE UNIV GHENT,LAB IND MICROBIOL & BIOCATALYSIS, COUPRE LINKS 653/B-9000 GHENT//BELGIUM/ (REPRINT)
Journal: POLYMER DEGRADATION AND STABILITY , 1998 , V 59 , N1-3,SI , P 93-99
ISSN: 0141-3910 Publication date: 19980000
Publisher: ELSEVIER SCI LTD , THE BOULEVARD, LANGFORD LANE, KIDLINGTON, OXFORD OX5 1GB, OXON, ENGLAND
Language: English Document Type: ARTICLE (ABSTRACT AVAILABLE)
Identifiers-- ...XYLINUM SUBSP SUCROFERMENTANS; CYCLIC DIGUANYLIC ACID; ACETOBACTER-XYLINUM; GLUCOSE; KU-1

7/3,K/40 (Item 17 from file: 34) Links
Fulltext available through: USPTO Full Text Retrieval Options
SciSearch(R) Cited Ref Sci

06504876 Genuine Article#: YX737 No. References: 24
Glycosylated triterpenoid saponin: a specific inhibitor of diguanylate cyclase from Acetobacter xylinum. Biological activity and distribution

Author: Ohana P (REPRINT) ; Delmer DP; Volman G; Benziman M
Corporate Source: HEBREW UNIV JERUSALEM,INST LIFE SCI, DEPT BIOL CHEM/IL-91904 JERUSALEM//ISRAEL/ (REPRINT); UNIV CALIF DAVIS,PLANT BIOL SECT/DAVIS//CA/95616
Journal: PLANT AND CELL PHYSIOLOGY , 1998 , V 39 , N2 (FEB) , P 153-159
ISSN: 0032-0781 Publication date: 19980200
Publisher: JAPANESE SOC PLANT PHYSIOLOGISTS , SHIMOTACHIURI OGAWA HIGASHI KAMIKYOKU, KYOTO 602, JAPAN
Language: English Document Type: ARTICLE (ABSTRACT AVAILABLE)

7/3,K/41 (Item 18 from file: 34) Links
Fulltext available through: USPTO Full Text Retrieval Options
SciSearch(R) Cited Ref Sci

06212906 Genuine Article#: YC259 No. References: 73
Cellulose and callose biosynthesis in higher plants .1. Solubilization and

separation of (1->3)- and (1->4)-beta-glucan synthase activities from mung bean

Author: Kudlicka K; Brown RM (REPRINT)
Corporate Source: UNIV TEXAS,DEPT BOT/AUSTIN//TX/78713 (REPRINT); UNIV TEXAS,DEPT BOT/AUSTIN//TX/78713
Journal: PLANT PHYSIOLOGY , 1997 , V 115 , N2 (OCT) , P 643-656
ISSN: 0032-0889 Publication date: 19971000
Publisher: AMER SOC PLANT PHYSIOLOGISTS , 15501 MONONA DRIVE, ROCKVILLE, MD 20855
Language: English Document Type: ARTICLE (ABSTRACT AVAILABLE)
Identifiers-- ...BETA-GLUCAN SYNTHESIS; LOLIUM-MULTIFLORUM ENDOSPERM; CYCLIC DIGUANYLIC ACID; CELL-FREE-EXTRACTS; UDP-GLUCOSE; ACETOBACTER-XYLINUM; PARTIAL-PURIFICATION; 1,3-BETA-GLUCAN SYNTHASE; COTTON ...

7/3,K/42 (Item 19 from file: 34) Links
Fulltext available through: USPTO Full Text Retrieval Options
SciSearch(R) Cited Ref Sci

06143488 Genuine Article#: XX826 No. References: 144
Cotton crop improvement through genetic engineering

Author: John ME (REPRINT)
Corporate Source: AGRACETUS,8520 UNIV GREEN/MIDDLETON//WI/53562 (REPRINT)
Journal: CRITICAL REVIEWS IN BIOTECHNOLOGY , 1997 , V 17 , N3 , P 185-208
ISSN: 0738-8551 Publication date: 19970000
Publisher: CRC PRESS INC , 2000 CORPORATE BLVD NW, JOURNALS CUSTOMER SERVICE, BOCA RATON, FL 33431
Language: English Document Type: REVIEW (ABSTRACT AVAILABLE)
Identifiers-- ...GOSSYPIUM-HIRSUTUM-L; TRANSGENIC MAIZE PLANTS; ACETOHYDROXYACID SYNTHASE GENES; N-ACETYLTRANSFERASE GENE; CYCLIC DIGUANYLIC ACID; FIBER MESSENGER-RNA; BACILLUS-THURINGIENSIS; ACETOBACTER-XYLINUM; CELLULOSE SYNTHASE; ESCHERICHIA-COLI

7/3,K/43 (Item 20 from file: 34) Links
Fulltext available through: USPTO Full Text Retrieval Options
SciSearch(R) Cited Ref Sci

05100359 Genuine Article#: VA448 No. References: 20
IMMUNOCHEMICAL STUDIES OF THE CELLULOSE SYNTHASE COMPLEX IN ACETOBACTER-XYLINUM

Author: CHEN HP; BROWN RM
Corporate Source: UNIV TEXAS,DEPT BOT/AUSTIN//TX/78713
Journal: CELLULOSE , 1996 , V 3 , N2 (JUN) , P 63-75
ISSN: 0969-0239
Language: ENGLISH Document Type: ARTICLE (Abstract Available)
Identifiers-- ...CYCLIC DIGUANYLIC ACID; BIOSYNTHESIS; PROTEINS; OPERON; IDENTIFICATION; MEMBRANE; SUBUNIT; GENE

7/3,K/44 (Item 21 from file: 34) Links
Fulltext available through: USPTO Full Text Retrieval Options
SciSearch(R) Cited Ref Sci

04617869 Genuine Article#: BE80G No. References: 175
GENERAL CONCLUSIONS FROM SOLID-STATE STUDIES OF NUCLEOTIDE-METAL ION COMPLEXES

Author: AOKI K
Corporate Source: TOYOHASHI UNIV TECHNOL,DEPT MAT SCI,TEMPAKU CHO/TOYOHASHI/AICHI 441/JAPAN/
Journal: METAL IONS IN BIOLOGICAL SYSTEMS , 1996 , V 32 , P 91-134
ISSN: 0161-5149
Language: ENGLISH Document Type: REVIEW

Identifiers-- ...STRUCTURE; GUANOSINE 5'-PHOSPHATE HEPTAHYDRATE; TERNARY COPPER(II) COMPLEXES; MONOMETHYL PHOSPHATE-ESTERS; DOUBLE-HELICAL FRAGMENTS; CYCLIC DIGUANYLIC ACID; Z-DNA STRUCTURE; HANDED Z-DNA; MOLECULAR-STRUCTURE; CRYSTAL-STRUCTURE

7/3,K/45 (Item 22 from file: 34) Links
Fulltext available through: USPTO Full Text Retrieval Options
SciSearch(R) Cited Ref Sci

04199533 Genuine Article#: RM937 No. References: 122
CELLULOSE BIOSYNTHESIS

Author: DELMER DP; AMOR Y
Corporate Source: HEBREW UNIV JERUSALEM,INST LIFE SCI,DEPT BOT/IL-91904 JERUSALEM//ISRAEL/
Journal: PLANT CELL , 1995 , V 7 , N7 (JUL) , P 987-1000
ISSN: 1040-4651
Language: ENGLISH Document Type: REVIEW
Identifiers-- ...CYCLIC DIGUANYLIC ACID; DEVELOPING COTTON FIBERS; BETA-GLUCAN SYNTHESIS; ACETOBACTER-XYLINUM; CALLOSE SYNTHASE; CELL-WALL; ARABIDOPSIS-THALIANA; SUCROSE

7/3,K/46 (Item 23 from file: 34) Links
Fulltext available through: USPTO Full Text Retrieval Options
SciSearch(R) Cited Ref Sci

03731532 Genuine Article#: QB247 No. References: 46
BETA-GLUCAN SYNTHESIS IN THE COTTON FIBER .4. IN-VITRO ASSEMBLY OF THE CELLULOSE-I ALLOMORPH

Author: KUDLICKA K; BROWN RM; LI LK; LEE JH; SHIN H; KUGA S
Corporate Source: UNIV TEXAS,DEPT BOT/AUSTIN//TX/78713; UNIV TEXAS,DEPT BOT/AUSTIN//TX/78713
Journal: PLANT PHYSIOLOGY , 1995 , V 107 , N1 (JAN) , P 111-123
ISSN: 0032-0889
Language: ENGLISH Document Type: ARTICLE (Abstract Available)
Identifiers-- ...CYCLIC DIGUANYLIC ACID; ACETOBACTER-XYLINUM; PLASMA-MEMBRANE; SYNTHASE; INVITRO; IDENTIFICATION; POLYPEPTIDE; BIOSYNTHESIS; RESOLUTION; PROTEINS

7/3,K/47 (Item 24 from file: 34) Links
Fulltext available through: USPTO Full Text Retrieval Options
SciSearch(R) Cited Ref Sci

03651829 Genuine Article#: PV118 No. References: 15
DETECTION OF CARBOXYMETHYL CELLULASE ACTIVITY IN ACETOBACTER-XYLINUM KU-1

Author: OIKAWA T; TAKAGI M; AMEYAMA M
Corporate Source: KANSAI UNIV,FAC ENGN,DEPT BIOTECHNOL/SUITA/OSAKA 564/JAPAN/
Journal: BIOSCIENCE BIOTECHNOLOGY AND BIOCHEMISTRY , 1994 , V 58 , N11 (NOV) , P 2102-2103
ISSN: 0916-8451
Language: ENGLISH Document Type: NOTE (Abstract Available)
Identifiers-- ...CYCLIC DIGUANYLIC ACID

7/3,K/48 (Item 25 from file: 34) Links
Fulltext available through: USPTO Full Text Retrieval Options
SciSearch(R) Cited Ref Sci

03454561 Genuine Article#: PG293 No. References: 99
BIOSYNTHESIS OF PLANT-CELL WALL POLYSACCHARIDES

Author: GIBEAUT DM; CARPITA NC
Corporate Source: PURDUE UNIV,DEPT BOT & PLANT PATHOL/W LAFAYETTE//IN/47907; PURDUE UNIV,DEPT BOT & PLANT PATHOL/W LAFAYETTE//IN/47907
Journal: FASEB JOURNAL , 1994 , V 8 , N12 (SEP) , P 904-915
ISSN: 0892-6638
Language: ENGLISH Document Type: REVIEW (Abstract Available)
Identifiers-- ...1,3)-BETA-GLUCAN CALLOSE SYNTHASE; CYCLIC DIGUANYLIC ACID; BETA-VULGARIS L; DEPENDENT CELLULOSE SYNTHASE; DAUCUS-CAROTA L; UDP-GLUCOSE; ACETOBACTER-XYLINUM; GLUCAN SYNTHASE...

7/3,K/49 (Item 26 from file: 34) Links
Fulltext available through: USPTO Full Text Retrieval Options
SciSearch(R) Cited Ref Sci

03361831 Genuine Article#: NZ215 No. References: 31
THE SOLUTION STRUCTURE OF THE CIRCULAR TRINUCLEOTIDE CR(GPGPGP) DETERMINED BY NMR AND MOLECULAR MECHANICS CALCULATION

Author: MOOREN MMW; WIJMENGA SS; VANDERMAREL GA; VANBOOM JH; HILBERS CW
Corporate Source: CATHOLIC UNIV NIJMEGEN,NSR CTR MOLEC STRUCT DESIGN & SYNTH,BIOPHYS CHEM LAB,TOERNOOIVELD 1/6525ED NIJMEGEN//NETHERLANDS/; CATHOLIC UNIV NIJMEGEN,NSR CTR MOLEC STRUCT DESIGN & SYNTH,BIOPHYS CHEM LAB/6525 ED NIJMEGEN//NETHERLANDS/; LEIDEN STATE UNIV,GORLAEUS LABS/2300 RA LEIDEN//NETHERLANDS/
Journal: NUCLEIC ACIDS RESEARCH , 1994 , V 22 , N13 (JUL 11) , P 2658-2666
ISSN: 0305-1048
Language: ENGLISH Document Type: ARTICLE (Abstract Available)
Identifiers-- ...CYCLIC DIGUANYLIC ACID; TRANSFER-RNA; CRYSTALLOGRAPHIC REFINEMENT; CONFORMATIONAL-ANALYSIS; AQUEOUS-SOLUTION; NUCLEIC-ACIDS; DNA HAIRPIN; OLIGONUCLEOTIDES; ASSIGNMENTS; RESOLUTION

7/3,K/50 (Item 27 from file: 34) Links
Fulltext available through: USPTO Full Text Retrieval Options
SciSearch(R) Cited Ref Sci

02365566 Genuine Article#: KX043 No. References: 20
BETA-GLUCAN SYNTHESIS IN THE COTTON FIBER .2. REGULATION AND KINETIC-PROPERTIES OF BETA-GLUCAN SYNTHASES

Author: LI LK; BROWN RM
Corporate Source: UNIV TEXAS,DEPT BOT/AUSTIN//TX/78713; UNIV TEXAS,DEPT BOT/AUSTIN//TX/78713
Journal: PLANT PHYSIOLOGY , 1993 , V 101 , N4 (APR) , P 1143-1148
ISSN: 0032-0889
Language: ENGLISH Document Type: ARTICLE (Abstract Available)
Identifiers-- ...CYCLIC DIGUANYLIC ACID; BEAN UDP-GLUCOSE; ENDOSPERM CELLS; MEMBRANE

7/3,K/51 (Item 28 from file: 34) Links
Fulltext available through: USPTO Full Text Retrieval Options
SciSearch(R) Cited Ref Sci

02365565 Genuine Article#: KX043 No. References: 46
BETA-GLUCAN SYNTHESIS IN THE COTTON FIBER .1. IDENTIFICATION OF BETA-1,4-GLUCAN AND BETA-1,3-GLUCAN SYNTHESIZED INVITRO

Author: OKUDA K; LI LK; KUDLICKA K; KUGA S; BROWN RM
Corporate Source: UNIV TEXAS,DEPT BOT/AUSTIN//TX/78713; UNIV TEXAS,DEPT BOT/AUSTIN//TX/78713
Journal: PLANT PHYSIOLOGY , 1993 , V 101 , N4 (APR) , P 1131-1142
ISSN: 0032-0889

Language: ENGLISH Document Type: ARTICLE (Abstract Available)
Identifiers-- ...CYCLIC DIGUANYLIC ACID; ACETOBACTER-XYLINUM; CELLULOSE SYNTHASE; UDP-GLUCOSE; URIDINE 5'-DIPHOSPHOGLUCOSE; WALL POLYMERS; MEMBRANE; BIOSYNTHESIS; PRODUCT; SUBUNIT

7/3,K/52 (Item 29 from file: 34) Links
Fulltext available through: USPTO Full Text Retrieval Options
SciSearch(R) Cited Ref Sci

02129868 Genuine Article#: KD460 No. References: 55
CELL-WALL DEVELOPMENT IN FREEZE-FIXED POLLEN - INTINE FORMATION OF LEDEBOURIA-SOCIALIS (HYACINTHACEAE)

Author: HESS MW
Corporate Source: UNIV VIENNA,INST BOT & BOT GARTEN,RENNWEG 14/A-1030 VIENNA//AUSTRIA/
Journal: PLANTA , 1993 , V 189 , N1 (JAN) , P 139-149
ISSN: 0032-0935
Language: ENGLISH Document Type: ARTICLE (Abstract Available)
Research Fronts: ...APOPLASTIC PATHWAY; ULTRASTRUCTURE OF COASTAL DOUGLAS-FIR SEEDLINGS (PSEUDOTSUGA-MENZIESII))
90-3372 001 (CELLULOSE SYNTHASE; CYCLIC DIGUANYLIC ACID REGULATORY SYSTEM; HYPHAL CELL-WALL; CONGO RED)
90-4493 001 (POLLEN MORPHOLOGY; ULMACEAE (URTICALES); EVOLUTION...

7/3,K/53 (Item 30 from file: 34) Links
Fulltext available through: USPTO Full Text Retrieval Options
SciSearch(R) Cited Ref Sci

02129864 Genuine Article#: KD460 No. References: 35
ANALYSIS OF CELL-WALL POLYMERS DURING COTTON FIBER DEVELOPMENT

Author: TIMPA JD; TRIPLETT BA
Corporate Source: USDA ARS,SO REG RES CTR,POB 19687/NEW ORLEANS//LA/70179
Journal: PLANTA , 1993 , V 189 , N1 (JAN) , P 101-108
ISSN: 0032-0935
Language: ENGLISH Document Type: ARTICLE (Abstract Available)
Research Fronts: ...OF NONLINEAR GAUSSIAN CHAINS; FLUCTUATING HYDRODYNAMIC INTERACTIONS; LINEAR CHLORAL OLIGOMERS)
90-3372 001 (CELLULOSE SYNTHASE; CYCLIC DIGUANYLIC ACID REGULATORY SYSTEM; HYPHAL CELL-WALL; CONGO RED)

7/3,K/54 (Item 31 from file: 34) Links
Fulltext available through: USPTO Full Text Retrieval Options
SciSearch(R) Cited Ref Sci

02129398 Genuine Article#: KC924 No. References: 43
ENLARGEMENT IN CHARA STUDIED WITH A TURGOR CLAMP - GROWTH-RATE IS NOT DETERMINED BY TURGOR

Author: ZHU GL; BOYER JS
Corporate Source: UNIV DELAWARE,COLL MARINE STUDIES/LEWES//DE/19958; UNIV DELAWARE,COLL MARINE STUDIES/LEWES//DE/19958; UNIV DELAWARE,COLL AGR/LEWES//DE/19958

Journal: PLANT PHYSIOLOGY , 1992 , V 100 , N4 (DEC) , P 2071-2080
ISSN: 0032-0889
Language: ENGLISH Document Type: ARTICLE (Abstract Available)
Research Fronts: ...SUGAR-BEET PECTINS; STRUCTURAL FEATURES; HAIRY FRAGMENTS; REGENERATING CARROT PROTOPLASTS)
90-3372 001 (CELLULOSE SYNTHASE; CYCLIC DIGUANYLIC ACID REGULATORY SYSTEM; HYPHAL

CELL-WALL; CONGO RED)

7/3,K/55 (Item 32 from file: 34) Links
Fulltext available through: USPTO Full Text Retrieval Options
SciSearch(R) Cited Ref Sci

02129375 Genuine Article#: KC924 No. References: 33
INHIBITION AND ULTRAVIOLET-INDUCED CHEMICAL MODIFICATION OF UDP-GLUCOSE - (1,3)-BETA-GLUCAN (CALLOSE) SYNTHASE BY CHLORPROMAZINE - MECHANISM OF CHLORPROMAZINE BINDING TO THE PLANT PLASMA-MEMBRANE

Author: HARRIMAN RW; SHAO AP; WASSERMAN BP
Corporate Source: RUTGERS STATE UNIV,COOK COLL,NEW JERSEY AGR EXPT STN,DEPT FOOD SCI/NEW BRUNSWICK//NJ/08903
Journal: PLANT PHYSIOLOGY , 1992 , V 100 , N4 (DEC) , P 1927-1933
ISSN: 0032-0889
Language: ENGLISH Document Type: ARTICLE (Abstract Available)
Research Fronts: ...I; RAS ADENYLATE-CYCLASE PATHWAY; HEAT-SHOCK PROTEIN HSP70 FAMILY)
90-3372 001 (CELLULOSE SYNTHASE; CYCLIC DIGUANYLIC ACID REGULATORY SYSTEM; HYPHAL CELL-WALL; CONGO RED)

7/3,K/56 (Item 33 from file: 34) Links
Fulltext available through: USPTO Full Text Retrieval Options
SciSearch(R) Cited Ref Sci

02062738 Genuine Article#: JY251 No. References: 66
DISPERSED LIGNIN IN TRACHEARY ELEMENTS TREATED WITH CELLULOSE SYNTHESIS INHIBITORS PROVIDES EVIDENCE THAT MOLECULES OF THE SECONDARY CELL-WALL MEDIATE WALL PATTERNING

Author: TAYLOR JG; OWEN TP; KOONCE LT; HAIGLER CH
Corporate Source: TEXAS TECH UNIV,DEPT BIOL SCI/LUBBOCK//TX/79409; TEXAS TECH UNIV,DEPT BIOL SCI/LUBBOCK//TX/79409
Journal: PLANT JOURNAL , 1992 , V 2 , N6 (NOV) , P 959-970
ISSN: 0960-7412
Language: ENGLISH Document Type: ARTICLE (Abstract Available)
Research Fronts: ...SUGAR-BEET PECTINS; STRUCTURAL FEATURES; HAIRY FRAGMENTS; REGENERATING CARROT PROTOPLASTS)
90-3372 001 (CELLULOSE SYNTHASE; CYCLIC DIGUANYLIC ACID REGULATORY SYSTEM; HYPHAL CELL-WALL; CONGO RED)

7/3,K/57 (Item 34 from file: 34) Links
Fulltext available through: USPTO Full Text Retrieval Options
SciSearch(R) Cited Ref Sci

02057082 Genuine Article#: JX810 No. References: 20
TRANSFORMATION OF ACETOBACTER-XYLINUM WITH PLASMID DNA BY ELECTROPORATION

Author: HALL PE; ANDERSON SM; JOHNSTON DM; CANNON RE
Corporate Source: UNIV N CAROLINA,DEPT BIOL/GREENSBORO//NC/27412; UNIV N CAROLINA,DEPT BIOL/GREENSBORO//NC/27412
Journal: PLASMID , 1992 , V 28 , N3 (NOV) , P 194-200
ISSN: 0147-619X
Language: ENGLISH Document Type: ARTICLE
Research Fronts: ...EFFICIENT ELECTROPORATION SYSTEM; OPTIMIZED TRANSFORMATION; SHUTTLE VECTOR CONSTRUCTION; CORYNEFORM BACTERIA)
90-3372 001 (CELLULOSE SYNTHASE; CYCLIC DIGUANYLIC ACID REGULATORY SYSTEM; HYPHAL CELL-WALL; CONGO RED)

7/3,K/58 (Item 35 from file: 34) Links
Fulltext available through: USPTO Full Text Retrieval Options
SciSearch(R) Cited Ref Sci

02049441 Genuine Article#: JX127 No. References: 10
ATOMIC FORCE MICROSCOPY OF CELLULOSE MICROFIBRILS - COMPARISON WITH TRANSMISSION ELECTRON-MICROSCOPY

Author: HANLEY SJ; GIASSON J; REVOL JF; GRAY DG
Corporate Source: PULP & PAPER RES INST CANADA,3420 UNIV ST/MONTREAL H3A 2A7/QUEBEC/CANADA/; PULP & PAPER RES INST CANADA,3420 UNIV ST/MONTREAL H3A 2A7/QUEBEC/CANADA/; MCGILL UNIV,DEPT CHEM/MONTREAL H3A 2A7/QUEBEC/CANADA/
Journal: POLYMER , 1992 , V 33 , N21 , P 4639-4642
ISSN: 0032-3861
Language: ENGLISH Document Type: NOTE (Abstract Available)
Research Fronts: 90-3372 001 (CELLULOSE SYNTHASE; CYCLIC DIGUANYLIC ACID REGULATORY SYSTEM; HYPHAL CELL-WALL; CONGO RED)

7/3,K/59 (Item 36 from file: 34) Links
Fulltext available through: USPTO Full Text Retrieval Options
SciSearch(R) Cited Ref Sci

02013674 Genuine Article#: JT860 No. References: 30
EFFECTS OF CYCLING TEMPERATURES ON FIBER METABOLISM IN CULTURED COTTON OVULES

Author: ROBERTS EM; RAO NR; HUANG JY; TROLINDER NL; HAIGLER CH
Corporate Source: TEXAS TECH UNIV,DEPT BIOL SCI/LUBBOCK//TX/79409; TEXAS TECH UNIV,DEPT BIOL SCI/LUBBOCK//TX/79409; USDA,PLANT STRESS & WATER CONSERVAT RES UNIT/LUBBOCK//TX/79401
Journal: PLANT PHYSIOLOGY , 1992 , V 100 , N2 (OCT) , P 979-986
ISSN: 0032-0889
Language: ENGLISH Document Type: ARTICLE (Abstract Available)
Research Fronts: ...SUGAR-BEET PECTINS; STRUCTURAL FEATURES; HAIRY FRAGMENTS; REGENERATING CARROT PROTOPLASTS)
90-3372 001 (CELLULOSE SYNTHASE; CYCLIC DIGUANYLIC ACID REGULATORY SYSTEM; HYPHAL CELL-WALL; CONGO RED)

7/3,K/60 (Item 37 from file: 34) Links
Fulltext available through: USPTO Full Text Retrieval Options
SciSearch(R) Cited Ref Sci

02013600 Genuine Article#: JT800 No. References: 139
TRENDS IN THE SEARCH FOR BIOACTIVE MICROBIAL METABOLITES

Author: OMURA S
Corporate Source: KITASATO INST,BIOL FUNCT RES CTR,5-9-1 SHIROKANE,MINATO KU/TOKYO 108//JAPAN/
Journal: JOURNAL OF INDUSTRIAL MICROBIOLOGY , 1992 , V 10 , N3-4 (SEP) , P 135-156

ISSN: 0169-4146
Language: ENGLISH Document Type: REVIEW (Abstract Available)
Research Fronts: 90-3372 002 (CELLULOSE SYNTHASE; CYCLIC DIGUANYLIC ACID REGULATORY SYSTEM; HYPHAL CELL-WALL; CONGO RED)
90-0478 001 (IVERMECTIN RESISTANCE; COMMUNITY-BASED TREATMENT...

7/3,K/61 (Item 38 from file: 34) Links
Fulltext available through: USPTO Full Text Retrieval Options
SciSearch(R) Cited Ref Sci

02007525 Genuine Article#: JT965 No. References: 18

VOIGT AND REUSS MODELS FOR PREDICTING CHANGES IN YOUNGS MODULUS OF DEHYDRATING PLANT ORGANS

Author: NIKLAS KJ
Corporate Source: CORNELL UNIV,PLANT BIOL RES LAB/ITHACA//NY/14853
Journal: ANNALS OF BOTANY , 1992 , V 70 , N4 (OCT) , P 347-355
ISSN: 0305-7364
Language: ENGLISH Document Type: ARTICLE
Research Fronts: 90-3372 001 (CELLULOSE SYNTHASE; CYCLIC DIGUANYLIC ACID REGULATORY SYSTEM; HYPHAL CELL-WALL; CONGO RED)

7/3,K/62 (Item 39 from file: 34) Links
Fulltext available through: USPTO Full Text Retrieval Options
SciSearch(R) Cited Ref Sci

02007206 Genuine Article#: JU070 No. References: 32
PURIFICATION TO HOMOGENEITY AND CHARACTERIZATION OF A 1,3-BETA-GLUCAN (CALLOSE) SYNTHASE FROM GERMINATING ARACHIS-HYPOGAEA COTYLEDONS

Author: KAMAT U; GARG R; SHARMA CB
Corporate Source: UNIV ROORKEE,DEPT BIOSCI & BIOTECHNOL/ROORKEE 247667/UTTAR PRADESH/INDIA/; UNIV ROORKEE,DEPT BIOSCI & BIOTECHNOL/ROORKEE 247667/UTTAR PRADESH/INDIA/
Journal: ARCHIVES OF BIOCHEMISTRY AND BIOPHYSICS , 1992 , V 298 , N2 (NOV 1) , P 731-739
ISSN: 0003-9861
Language: ENGLISH Document Type: ARTICLE
Research Fronts: ...I; RAS ADENYLATE-CYCLASE PATHWAY; HEAT-SHOCK PROTEIN HSP70 FAMILY)
90-3372 001 (CELLULOSE SYNTHASE; CYCLIC DIGUANYLIC ACID REGULATORY SYSTEM; HYPHAL CELL-WALL; CONGO RED)
90-6511 001 (CA-2+ CHANNELS IN ISOLATED...

7/3,K/63 (Item 40 from file: 34) Links
Fulltext available through: USPTO Full Text Retrieval Options
SciSearch(R) Cited Ref Sci

01935689 Genuine Article#: JN097 No. References: 49
THE INFLUENCE OF CONGO RED ON THE CELL-WALL AND (1->3)-BETA-D-GLUCAN MICROFIBRIL BIOGENESIS IN SACCHAROMYCES-CEREVISIAE

Author: KOPECKA M; GABRIEL M
Corporate Source: MASARYK UNIV,FAC MED,DEPT BIOL,JOSTOVA 10/CS-66243 BRNO//CZECHOSLOVAKIA/
Journal: ARCHIVES OF MICROBIOLOGY , 1992 , V 158 , N2 (JUL) , P 115-126
ISSN: 0302-8933
Language: ENGLISH Document Type: ARTICLE (Abstract Available)
Research Fronts: 90-3372 001 (CELLULOSE SYNTHASE; CYCLIC DIGUANYLIC ACID REGULATORY SYSTEM; HYPHAL CELL-WALL; CONGO RED)
90-4171 001 (SCANNING ELECTRON-MICROSCOPY; HIGH-RESOLUTION...

7/3,K/64 (Item 41 from file: 34) Links
Fulltext available through: USPTO Full Text Retrieval Options
SciSearch(R) Cited Ref Sci

01928498 Genuine Article#: JM261 No. References: 15
ACTIVATORS AND INHIBITORS OF THE PLANT PLASMA-MEMBRANE 1,3-BETA-GLUCAN SYNTHASE

Author: FREDRIKSON K; LARSSON C
Corporate Source: UNIV LUND,DEPT PLANT BIOCHEM,POB 7007/S-22007 LUND 7//SWEDEN/

Journal: BIOCHEMICAL SOCIETY TRANSACTIONS , 1992 , V 20 , N3 (AUG) , P 710-713
ISSN: 0300-5127
Language: ENGLISH Document Type: ARTICLE
Research Fronts: 90-3372 001 (CELLULOSE SYNTHASE; CYCLIC DIGUANYLIC ACID REGULATORY SYSTEM; HYPHAL CELL-WALL; CONGO RED)
  90-6511 001 (CA-2+ CHANNELS IN ISOLATED...

7/3,K/65 (Item 42 from file: 34) Links
  Fulltext available through: USPTO Full Text Retrieval Options
SciSearch(R) Cited Ref Sci

01926989 Genuine Article#: JM559 No. References: 148
DNA-STRUCTURE FROM A TO Z

Author: DICKERSON RE
Corporate Source: UNIV CALIF LOS ANGELES,INST MOLEC BIOL/LOS ANGELES//CA/90024
Journal: METHODS IN ENZYMOLOGY , 1992 , V 211 , P 67-111
ISSN: 0076-6879
Language: ENGLISH Document Type: REVIEW
Identifiers-- ...ANALYSIS; SEQUENCE-DEPENDENT CONFORMATION; ANTITUMOR DRUG NOGALAMYCIN; 1.0-A ATOMIC RESOLUTION; ORDERED WATER-STRUCTURE; CYCLIC DIGUANYLIC ACID; DOUBLE HELICAL DNA; LEFT-HANDED DNA; B-Z TRANSITION; G-C-G

7/3,K/66 (Item 43 from file: 34) Links
  Fulltext available through: USPTO Full Text Retrieval Options
SciSearch(R) Cited Ref Sci

01909593 Genuine Article#: JL023 No. References: 186
ROLE OF CALCIUM IN ALUMINUM TOXICITY

Author: RENGEL Z
Corporate Source: UNIV ADELAIDE,WAITE AGR RES INST,DEPT PLANT SCI/GLEN OSMOND/SA 5064/AUSTRALIA/
Journal: NEW PHYTOLOGIST , 1992 , V 121 , N4 (AUG) , P 499-513
ISSN: 0028-646X
Language: ENGLISH Document Type: REVIEW (Abstract Available)
Research Fronts: ...OF INTACT WHEAT ROOTS; TREE STEMS; HYDRAULIC CONDUCTANCE; DROUGHT RESISTANCE)
 90-3372 001 (CELLULOSE SYNTHASE; CYCLIC DIGUANYLIC ACID REGULATORY SYSTEM; HYPHAL CELL-WALL; CONGO RED)
 90-3916 001 (PHOSPHORUS STRESS; NITRATE TRANSPORT IN...

7/3,K/67 (Item 44 from file: 34) Links
  Fulltext available through: USPTO Full Text Retrieval Options
SciSearch(R) Cited Ref Sci

01906028 Genuine Article#: JK633 No. References: 45
PRODUCTION OF FERTILE HYBRIDS BY ELECTROFUSION OF VACUOLATED AND EVACUOLATED TOBACCO MESOPHYLL PROTOPLASTS

Author: NATON B; ECKE M; HAMPP R
Corporate Source: UNIV TUBINGEN,INST BOT,LEHRSTUHL PHYSIOL OKOL PFLANZEN,MORGENSTELLE 1/W-7400 TUBINGEN 1//GERMANY/
Journal: PLANT SCIENCE , 1992 , V 85 , N2 , P 197-208
ISSN: 0168-9452
Language: ENGLISH Document Type: ARTICLE (Abstract Available)
Research Fronts: 90-3372 001 (CELLULOSE SYNTHASE; CYCLIC DIGUANYLIC ACID REGULATORY SYSTEM; HYPHAL CELL-WALL; CONGO RED)
  90-5824 001 (INVITRO MULTIPLE SHOOT REGENERATION; SOMATIC...

7/3,K/68 (Item 45 from file: 34) Links
Fulltext available through: USPTO Full Text Retrieval Options
SciSearch(R) Cited Ref Sci

01899533 Genuine Article#: JK206 No. References: 29
ROOT MORPHOLOGY MUTANTS IN ARABIDOPSIS-THALIANA

Author: BASKIN TI; BETZNER AS; HOGGART R; CORK A; WILLIAMSON RE
Corporate Source: UNIV MISSOURI,DIV BIOL SCI/COLUMBIA//MO/65211; AUSTRALIAN NATL UNIV,RES SCH BIOL SCI,PLANT CELL BIOL GRP/CANBERRA/ACT 2601/AUSTRALIA/
Journal: AUSTRALIAN JOURNAL OF PLANT PHYSIOLOGY , 1992 , V 19 , N4 , P 427-437
ISSN: 0310-7841
Language: ENGLISH Document Type: ARTICLE (Abstract Available)
Research Fronts: ...OF INTACT WHEAT ROOTS; TREE STEMS; HYDRAULIC CONDUCTANCE; DROUGHT RESISTANCE)
90-3372 001 (CELLULOSE SYNTHASE; CYCLIC DIGUANYLIC ACID REGULATORY SYSTEM; HYPHAL CELL-WALL; CONGO RED)

7/3,K/69 (Item 46 from file: 34) Links
Fulltext available through: USPTO Full Text Retrieval Options
SciSearch(R) Cited Ref Sci

01895872 Genuine Article#: JK168 No. References: 43
PHOTOAFFINITY-LABELING OF GLYCOSYLTRANSFERASES

Author: DRAKE RR; ELBEIN AD
Corporate Source: UNIV ARKANSAS MED SCI HOSP,DEPT BIOCHEM & MOLECBIOL,4301 W MARKHAM/LITTLE ROCK//AR/72205
Journal: GLYCOBIOLOGY , 1992 , V 2 , N4 (AUG) , P 279-284
ISSN: 0959-6658
Language: ENGLISH Document Type: REVIEW (Abstract Available)
Research Fronts: 90-3372 002 (CELLULOSE SYNTHASE; CYCLIC DIGUANYLIC ACID REGULATORY SYSTEM; HYPHAL CELL-WALL; CONGO RED)
90-6592 001 (GLYCOPROTEIN EXPRESSION; CHINESE-HAMSTER OVARY...

7/3,K/70 (Item 47 from file: 34) Links
SciSearch(R) Cited Ref Sci

01890834 Genuine Article#: JJ323 No. References: 42
OCCURRENCE OF THE PUTATIVE MICROFIBRIL-SYNTHESIZING COMPLEXES (LINEAR TERMINAL COMPLEXES) IN THE PLASMA-MEMBRANE OF THE EPIPHYTIC MARINE RED ALGA ERYTHROCLADIA-SUBINTEGRA ROSENV

Author: TSEKOS I; REISS HD
Corporate Source: UNIV THESSALONIKI,INST BOT/GR-54006 SALONIKA//GREECE/; UNIV HEIDELBERG/W-6900 HEIDELBERG//GERMANY/
Journal: PROTOPLASMA , 1992 , V 169 , N1-2 , P 57-67
Language: ENGLISH Document Type: ARTICLE (Abstract Available)
Research Fronts: 90-3372 001 (CELLULOSE SYNTHASE; CYCLIC DIGUANYLIC ACID REGULATORY SYSTEM; HYPHAL CELL-WALL; CONGO RED)

7/3,K/71 (Item 48 from file: 34) Links
SciSearch(R) Cited Ref Sci

01861772 Genuine Article#: JG545 No. References: 21
ENHANCEMENT OF GYPSY-MOTH (LEPIDOPTERA, LYMANTRIIDAE) BACULOVIRUS ACTIVITY BY OPTICAL BRIGHTENERS

Author: SHAPIRO M; ROBERTSON JL

Corporate Source: USDA ARS,BELTSVILLE AGR RES CTR,INSECT BIOCONTROL LAB,BARC-W/BELTSVILLE//MD/20705
Journal: JOURNAL OF ECONOMIC ENTOMOLOGY , 1992 , V 85 , N4 (AUG) , P 1120-1124
Language: ENGLISH Document Type: ARTICLE (Abstract Available)
Research Fronts: ...LYMANTRIIDAE); DISTRIBUTION OF A NUCLEAR POLYHEDROSIS-VIRUS; ARTIFICIALLY AUGMENTED POPULATIONS)
90-3372 001 (CELLULOSE SYNTHASE; CYCLIC DIGUANYLIC ACID REGULATORY SYSTEM; HYPHAL CELL-WALL; CONGO RED)

7/3,K/72 (Item 49 from file: 34) Links
SciSearch(R) Cited Ref Sci

01857522 Genuine Article#: JG582 No. References: 48
PREMATURE DISSOLUTION OF THE MICROSPOROCYTE CALLOSE WALL CAUSES MALE-STERILITY IN TRANSGENIC TOBACCO

Author: WORRALL D; HIRD DL; HODGE R; PAUL W; DRAPER J; SCOTT R
Corporate Source: UNIV LEICESTER,DEPT BOT,UNIV RD/LEICESTER LE1 7RH//ENGLAND/; UNIV LEICESTER,DEPT BOT,UNIV RD/LEICESTER LE1 7RH//ENGLAND/
Journal: PLANT CELL , 1992 , V 4 , N7 (JUL) , P 759-771
Language: ENGLISH Document Type: ARTICLE (Abstract Available)
Research Fronts: ...GUS GENE; INDICA RICE PROTOPLASTS; MICROPROJECTILE BOMBARDMENT; AGROBACTERIUM MEDIATED TRANSFORMATION)
90-3372 001 (CELLULOSE SYNTHASE; CYCLIC DIGUANYLIC ACID REGULATORY SYSTEM; HYPHAL CELL-WALL; CONGO RED)

7/3,K/73 (Item 50 from file: 34) Links
SciSearch(R) Cited Ref Sci

01854664 Genuine Article#: JG349 No. References: 31
EFFECTS OF DICHLOROBENZONITRILE ON THE FORMATION OF CELL-WALL APPOSITIONS (PLUGS) IN INTERNODAL CELLS OF CHARA-CORALLINA KLEIN EX WILLD, EM RDW AND NITELLA-FLEXILIS (L) AG

Author: FOISSNER I
Corporate Source: SALZBURG UNIV,INST PFLANZENPHYSIOL,HELLBRUNNERSTR 34/A-5020 SALZBURG//AUSTRIA/
Journal: NEW PHYTOLOGIST , 1992 , V 121 , N3 (JUL) , P 447-455
Language: ENGLISH Document Type: ARTICLE (Abstract Available)
Research Fronts: 90-3372 001 (CELLULOSE SYNTHASE; CYCLIC DIGUANYLIC ACID REGULATORY SYSTEM; HYPHAL CELL-WALL; CONGO RED)

7/3,K/74 (Item 51 from file: 34) Links
SciSearch(R) Cited Ref Sci

01805234 Genuine Article#: JC868 No. References: 20
GENE-EXPRESSION IN COTTON (GOSSYPIUM-HIRSUTUM L) FIBER - CLONING OF THE MESSENGER-RNAS

Author: JOHN ME; CROW LJ
Corporate Source: AGRACETUS INC,8520 UNIV GREEN/MIDDLETON//WI/53562
Journal: PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA , 1992 , V 89 , N13 (JUL 1) , P 5769-5773
Language: ENGLISH Document Type: ARTICLE (Abstract Available)
Research Fronts: ...GUS GENE; INDICA RICE PROTOPLASTS; MICROPROJECTILE BOMBARDMENT; AGROBACTERIUM MEDIATED TRANSFORMATION)
90-3372 001 (CELLULOSE SYNTHASE; CYCLIC DIGUANYLIC ACID REGULATORY SYSTEM; HYPHAL CELL-WALL; CONGO RED)

>>>W: KWIC option is not available in file(s): 399
 7/3,K/75 (Item 52 from file: 34) Links
SciSearch(R) Cited Ref Sci

01793459   Genuine Article#: JB413   No. References: 25
COMPLEMENTARY PATTERNS OF STIFFNESS IN STEM AND LEAF SHEATHS OF TRITICALE - MEASUREMENTS OF ULTRASOUND VELOCITY

Author: ZEBROWSKI J
Corporate Source: PHYTOTRON PLANT BREEDING & ACCLIMATIZAT INST,RADZIKOW,POB 1019/PL-00950 WARSAW//POLAND/
Journal: PLANTA , 1992 , V 187 , N3 (JUN) , P 301-305
Language: ENGLISH   Document Type: ARTICLE   (Abstract Available)
Research Fronts: ...HIGH-TC SUPERCONDUCTORS; NEGATIVE POISSON RATIOS; TRABECULAR BONE; MICROPOROUS MATERIALS)
 90-3372 001 (CELLULOSE SYNTHASE; CYCLIC DIGUANYLIC ACID REGULATORY SYSTEM; HYPHAL CELL-WALL; CONGO RED)

 7/3,K/76 (Item 53 from file: 34) Links
SciSearch(R) Cited Ref Sci

01793343   Genuine Article#: JB906   No. References: 42
SOLID-PHASE SYNTHESIS OF OLIGODEOXYNUCLEOTIDES CONTAINING 6-O-ALKYLGUANOSINES

Author: ROELEN HCPF; BRUGGHE HF; VANDENELST H; KLEIN JC; VANDERMAREL GA; VANBOOM JH
Corporate Source: GORLAEUS LABS,POB 9502/2300 RA LEIDEN//NETHERLANDS/; NETHERLANDS CANC INST,DIV CHEM CARCINOGENESIS/1066 CX AMSTERDAM//NETHERLANDS/; NETHERLANDS CANC INST,DIV MOLEC GENET/1066 CX AMSTERDAM//NETHERLANDS/
Journal: RECUEIL DES TRAVAUX CHIMIQUES DES PAYS-BAS-JOURNAL OF THE ROYAL NETHERLANDS CHEMICAL SOCIETY , 1992 , V 111 , N5 (MAY) , P 227-234
Language: ENGLISH   Document Type: ARTICLE   (Abstract Available)
Research Fronts: ...MID-UV RADIATION; MUTAGENICITY OF ETHYL METHANESULFONATE; RAT ISOLATED BLADDER)
 90-3372 001 (CELLULOSE SYNTHASE; CYCLIC DIGUANYLIC ACID REGULATORY SYSTEM; HYPHAL CELL-WALL; CONGO RED)
 90-7403 001 (APURINIC SITES IN DNA; CHINESE...

 7/3,K/77 (Item 54 from file: 34) Links
SciSearch(R) Cited Ref Sci

01766711   Genuine Article#: HZ844   No. References: 19
SYNTHESIS OF POLYSACCHARIDES IN PHRAGMOPLASTS ISOLATED FROM TOBACCO BY-2 CELLS

Author: KAKIMOTO T; SHIBAOKA H
Corporate Source: OSAKA UNIV,FAC SCI,DEPT BIOL/TOYONAKA/OSAKA 560/JAPAN/
Journal: PLANT AND CELL PHYSIOLOGY , 1992 , V 33 , N4 (JUN) , P 353-361
Language: ENGLISH   Document Type: ARTICLE   (Abstract Available)
Research Fronts: 90-3372 001 (CELLULOSE SYNTHASE; CYCLIC DIGUANYLIC ACID REGULATORY SYSTEM; HYPHAL CELL-WALL; CONGO RED)
  90-6217 001 (CORTICAL MICROTUBULES; MITOSIS IN WHEAT...

 7/3,K/78 (Item 55 from file: 34) Links
SciSearch(R) Cited Ref Sci

01762302   Genuine Article#: HY605   No. References: 42
LIQUID-CRYSTAL ORDER AND TURBULENCE IN THE PLANAR TWIST OF THE GROWING PLANT-CELL WALLS

Author: ROLAND JC; REIS D; VIAN B
Corporate Source: UNIV PARIS 06,ECOLE NORMALE SUPER,BIOMEMBRANES & SURFACES

CELLULAIRES,46 RUE ULM/F-75230 PARIS 05//FRANCE/
Journal: TISSUE & CELL , 1992 , V 24 , N3 , P 335-345
Language: ENGLISH Document Type: ARTICLE (Abstract Available)
Research Fronts: ...OF INTACT WHEAT ROOTS; TREE STEMS; HYDRAULIC CONDUCTANCE; DROUGHT RESISTANCE)
 90-3372 001 (CELLULOSE SYNTHASE; CYCLIC DIGUANYLIC ACID REGULATORY SYSTEM; HYPHAL CELL-WALL; CONGO RED)

 7/3,K/79 (Item 56 from file: 34) Links
SciSearch(R) Cited Ref Sci

01762301 Genuine Article#: HY605 No. References: 102
SPATIAL AND TEMPORAL REGULATIONS IN HELICOIDAL EXTRACELLULAR MATRICES - COMPARISON BETWEEN PLANT AND ANIMAL SYSTEMS

Author: SATIATJEUNEMAITRE B
Corporate Source: ECOLE NORM SUPER,CNRS,BIOMEMBRANES & SURFACES CELLULAIRES VEGETALES LAB,46 RUE ULM/F-75231 PARIS 05//FRANCE/
Journal: TISSUE & CELL , 1992 , V 24 , N3 , P 315-334
Language: ENGLISH Document Type: REVIEW (Abstract Available)
Research Fronts: ...IMPROVED GROWTH OF CAJANUS-CAJAN (L) MILLSP; HERBACEOUS WOODLAND PLANTS)
 90-3372 001 (CELLULOSE SYNTHASE; CYCLIC DIGUANYLIC ACID REGULATORY SYSTEM; HYPHAL CELL-WALL; CONGO RED)
 90-6217 001 (CORTICAL MICROTUBULES; MITOSIS IN WHEAT...

 7/3,K/80 (Item 57 from file: 34) Links
SciSearch(R) Cited Ref Sci

01744245 Genuine Article#: HX587 No. References: 43
A NEW PUTATIVE CELLULOSE-SYNTHESIZING COMPLEX OF COLEOCHAETE-SCUTATA

Author: OKUDA K; BROWN RM
Corporate Source: UNIV TEXAS,DEPT BOT/AUSTIN//TX/78712; UNIV TEXAS,DEPT BOT/AUSTIN//TX/78712
Journal: PROTOPLASMA , 1992 , V 168 , N1-2 , P 51-63
Language: ENGLISH Document Type: ARTICLE (Abstract Available)
Research Fronts: ...001 (FLAGELLAR APPARATUS; PHYLOGENETIC POSITION; MALLOMONAS-SPLENDENS (SYNUROPHYCEAE); QUADRIFLAGELLATE ZOOSPORES)
 90-3372 001 (CELLULOSE SYNTHASE; CYCLIC DIGUANYLIC ACID REGULATORY SYSTEM; HYPHAL CELL-WALL; CONGO RED)

 7/3,K/81 (Item 58 from file: 34) Links
SciSearch(R) Cited Ref Sci

01743317 Genuine Article#: HX689 No. References: 19
CHANGES IN THE ULTRASTRUCTURE OF CELL-WALLS, CELLULOSE SYNTHESIS, AND GLUCAN SYNTHASE ACTIVITY FROM GRAVISTIMULATED PULVINI OF OAT (AVENA-SATIVA)

Author: LU CR; KIM DH; KAUFMAN PB
Corporate Source: UNIV MICHIGAN,DEPT BIOL/ANN ARBOR//MI/48109; UNIV MICHIGAN,DEPT BIOL/ANN ARBOR//MI/48109
Journal: INTERNATIONAL JOURNAL OF PLANT SCIENCES , 1992 , V 153 , N2 (JUN) , P 164-170
Language: ENGLISH Document Type: ARTICLE (Abstract Available)
Research Fronts: 90-3372 001 (CELLULOSE SYNTHASE; CYCLIC DIGUANYLIC ACID REGULATORY SYSTEM; HYPHAL CELL-WALL; CONGO RED)
  90-8066 001 (MIDGUT ULTRASTRUCTURE; DAY-6 RABBIT...

7/3,K/82 (Item 59 from file: 34) Links
SciSearch(R) Cited Ref Sci

01734124 Genuine Article#: HW518 No. References: 300
CELL BIOLOGY OF PATHOGENESIS

Author: HARDHAM AR
Corporate Source: AUSTRALIAN NATL UNIV,RES SCH BIOL SCI,PLANT CELL BIOL GRP/CANBERRA/ACT 2601/AUSTRALIA/
Journal: ANNUAL REVIEW OF PLANT PHYSIOLOGY AND PLANT MOLECULAR BIOLOGY , 1992 , V 43 , P 491-526
Language: ENGLISH Document Type: REVIEW
Research Fronts: ...SPINDLE POLE BODY; MICROTUBULE FUNCTION IN ASPERGILLUS-NIDULANS; CONGO RED)
90-3372 001 (CELLULOSE SYNTHASE; CYCLIC DIGUANYLIC ACID REGULATORY SYSTEM; HYPHAL CELL-WALL; CONGO RED)
90-6511 001 (CA-2+ CHANNELS IN ISOLATED...

7/3,K/83 (Item 60 from file: 34) Links
SciSearch(R) Cited Ref Sci

01732159 Genuine Article#: HV887 No. References: 23
NEW METHODS FOR THE SYNTHESIS OF 3'-S-PHOSPHOROTHIOLATE INTERNUCLEOSIDE LINKAGES

Author: VYLE JS; LI X; COSSTICK R
Corporate Source: UNIV LIVERPOOL,ROBERT ROBINSON LABS,DEPT CHEM,POB 147/LIVERPOOL L69 3BX//ENGLAND/; UNIV LIVERPOOL,ROBERT ROBINSON LABS,DEPT CHEM,POB 147/LIVERPOOL L69 3BX//ENGLAND/
Journal: TETRAHEDRON LETTERS , 1992 , V 33 , N21 (MAY 19) , P 3017-3020
Language: ENGLISH Document Type: ARTICLE (Abstract Available)
Research Fronts: 90-3372 001 (CELLULOSE SYNTHASE; CYCLIC DIGUANYLIC ACID REGULATORY SYSTEM; HYPHAL CELL-WALL; CONGO RED)
90-5147 001 (PHOSPHOROTHIOATE ANALOGS; AUTOLYTIC PROCESSING REACTION...

7/3,K/84 (Item 61 from file: 34) Links
SciSearch(R) Cited Ref Sci

01672998 Genuine Article#: HQ944 No. References: 30
THE REGULATION OF THE ACTIVITY OF SOLUBLE STARCH SYNTHASE IN SPINACH LEAVES BY A CALCIUM-CALMODULIN DEPENDENT PROTEIN-KINASE

Author: DREIER W; PREUSSER E; GRUNDEL M
Corporate Source: HUMBOLDT UNIV,FACHBEREICH BIOL,INVALIDENSTR 43/O-1040 BERLIN//GERMANY/
Journal: BIOCHEMIE UND PHYSIOLOGIE DER PFLANZEN , 1992 , V 188 , N2 (APR) , P 81-96
Language: ENGLISH Document Type: ARTICLE (Abstract Available)
Research Fronts: ...I; RAS ADENYLATE-CYCLASE PATHWAY; HEAT-SHOCK PROTEIN HSP70 FAMILY)
90-3372 001 (CELLULOSE SYNTHASE; CYCLIC DIGUANYLIC ACID REGULATORY SYSTEM; HYPHAL CELL-WALL; CONGO RED)
90-3998 001 (CALMODULIN INTERACTION; PROTEIN KINASE-C...

7/3,K/85 (Item 62 from file: 34) Links
SciSearch(R) Cited Ref Sci

01648566 Genuine Article#: HM863 No. References: 86
SIZE, MORPHOLOGY AND COMPOSITION OF PARTICULATES IN AQUATIC ECOSYSTEMS - SOLVING SPECIATION PROBLEMS BY CORRELATIVE ELECTRON-MICROSCOPY

Author: LEPPARD GG
Corporate Source: NATL WATER RES INST BRANCH,RIVERS RES BRANCH/BURLINGTON L7R 4A6/ONTARIO/CANADA/
Journal: ANALYST , 1992 , V 117 , N3 (MAR) , P 595-603
Language: ENGLISH Document Type: ARTICLE (Abstract Available)
Research Fronts: ...PSEUDOMONAS-AERUGINOSA INFECTION; COPPER CORROSION; DIVISION CYCLE; COAGULASE-NEGATIVE STAPHYLOCOCCI)
 90-3372 001 (CELLULOSE SYNTHASE; CYCLIC DIGUANYLIC ACID REGULATORY SYSTEM; HYPHAL CELL-WALL; CONGO RED)
 90-3464 001 (HUMIC SUBSTANCES; PHYSICOCHEMICAL HETEROGENEITY OF...

 7/3,K/86 (Item 63 from file: 34) Links
SciSearch(R) Cited Ref Sci

01591001 Genuine Article#: HK255 No. References: 14
CELL-WALL TEXTURE IN SHOOT APEX CELLS

Author: SASSEN MMA; WOLTERSARTS AMC
Corporate Source: CATHOLIC UNIV NIJMEGEN,DEPT EXPTL BOT/6525 ED NIJMEGEN//NETHERLANDS/
Journal: ACTA BOTANICA NEERLANDICA , 1992 , V 41 , N1 (MAR) , P 25-29
Language: ENGLISH Document Type: ARTICLE (Abstract Available)
Research Fronts: 90-3372 001 (CELLULOSE SYNTHASE; CYCLIC DIGUANYLIC ACID REGULATORY SYSTEM; HYPHAL CELL-WALL; CONGO RED)
  90-8066 001 (MIDGUT ULTRASTRUCTURE; DAY-6 RABBIT...

 7/3,K/87 (Item 64 from file: 34) Links
SciSearch(R) Cited Ref Sci

01590101 Genuine Article#: HK437 No. References: 22
STRUCTURAL FEATURES OF NATIVE CELLULOSE GELS AND FILMS FROM THEIR SUSCEPTIBILITY TO ENZYMATIC ATTACK

Author: BELTRAME PL; PAGLIA ED; SEVES A; PELLIZZONI E; ROMANO M
Corporate Source: UNIV MILAN,DIPARTIMENTO CHIM FIS & ELETTROCHIM/I-20122 MILAN//ITALY/; STN SPERIMENTALE SETA/MILAN//ITALY/; STN SPERIMENTALE CELLULOSA CARTA & FIBRE TESSILI VEGETALI & ARTIFICIALI/MILAN//ITALY/
Journal: JOURNAL OF APPLIED POLYMER SCIENCE , 1992 , V 44 , N12 (APR 25) , P 2095-2101
Language: ENGLISH Document Type: ARTICLE (Abstract Available)
Research Fronts: ...MUSHROOM TERMITOMYCES-CLYPEATUS; SWEET-POTATO BETA-AMYLASE; LICHEN EVERNIA-PRUNASTRI)
 90-3372 001 (CELLULOSE SYNTHASE; CYCLIC DIGUANYLIC ACID REGULATORY SYSTEM; HYPHAL CELL-WALL; CONGO RED)

 7/3,K/88 (Item 65 from file: 34) Links
SciSearch(R) Cited Ref Sci

01588601 Genuine Article#: HK385 No. References: 20
EFFECTS OF 2,6-DICHLOROBENZONITRILE AND TINOPAL LPW ON THE STRUCTURE OF THE CELLULOSE SYNTHESIZING COMPLEXES OF VAUCHERIA-HAMATA

Author: MIZUTA S; BROWN RM
Corporate Source: UNIV TEXAS,DEPT BOT/AUSTIN//TX/78713; UNIV TEXAS,DEPT BOT/AUSTIN//TX/78713; KOCHI UNIV,FAC SCI,DEPT BIOL/KOCHI 780//JAPAN/
Journal: PROTOPLASMA , 1992 , V 166 , N3-4 , P 200-207
Language: ENGLISH Document Type: ARTICLE (Abstract Available)
Research Fronts: 90-3372 002 (CELLULOSE SYNTHASE; CYCLIC DIGUANYLIC ACID REGULATORY SYSTEM; HYPHAL CELL-WALL; CONGO RED)

7/3,K/89 (Item 66 from file: 34) Links
SciSearch(R) Cited Ref Sci

01588600 Genuine Article#: HK385 No. References: 32
HIGH-RESOLUTION ANALYSIS OF THE FORMATION OF CELLULOSE SYNTHESIZING COMPLEXES IN VAUCHERIA-HAMATA

Author: MIZUTA S; BROWN RM
Corporate Source: UNIV TEXAS,DEPT BOT/AUSTIN//TX/78713; UNIV TEXAS,DEPT BOT/AUSTIN//TX/78713; KOCHI UNIV,FAC SCI,DEPT BIOL/KOCHI 780//JAPAN/
Journal: PROTOPLASMA , 1992 , V 166 , N3-4 , P 187-199
Language: ENGLISH Document Type: ARTICLE (Abstract Available)
Research Fronts: 90-3372 002 (CELLULOSE SYNTHASE; CYCLIC DIGUANYLIC ACID REGULATORY SYSTEM; HYPHAL CELL-WALL; CONGO RED)

7/3,K/90 (Item 67 from file: 34) Links
SciSearch(R) Cited Ref Sci

01587056 Genuine Article#: HK436 No. References: 54
THE CORRELATION BETWEEN X-RAY ORIENTATION PARAMETERS AND STRENGTH OF FIBERS IN NATIVE COTTON

Author: MOHARIR AV; LOUWAGIE J; VANLANGENHOVE L; KIEKENS P
Corporate Source: STATE UNIV GHENT,MEULEMEESTER TECHNOL TEXTIELSTOFFEN LAB,GROTESTEENWEG NOORD 2/B-9052 ZWIJNAARDE//BELGIUM/; STATE UNIV GHENT,MEULEMEESTER TECHNOL TEXTIELSTOFFEN LAB,GROTESTEENWEG NOORD 2/B-9052 ZWIJNAARDE//BELGIUM/
Journal: JOURNAL OF APPLIED POLYMER SCIENCE , 1992 , V 44 , N11 (APR 15) , P 1913-1919
Language: ENGLISH Document Type: ARTICLE (Abstract Available)
Research Fronts: 90-3372 001 (CELLULOSE SYNTHASE; CYCLIC DIGUANYLIC ACID REGULATORY SYSTEM; HYPHAL CELL-WALL; CONGO RED)

7/3,K/91 (Item 68 from file: 34) Links
SciSearch(R) Cited Ref Sci

01584643 Genuine Article#: HJ785 No. References: 634
ADVANCES IN THE SYNTHESIS OF OLIGONUCLEOTIDES BY THE PHOSPHORAMIDITE APPROACH

Author: BEAUCAGE SL; IYER RP
Corporate Source: US FDA,CTR BIOL EVALUAT & RES,DIV BIOCHEM & BIOPHYS/BETHESDA//MD/20892
Journal: TETRAHEDRON , 1992 , V 48 , N12 (MAR 20) , P 2223-2311
Language: ENGLISH Document Type: REVIEW
Research Fronts: ...0475 001 (SOLID-PHASE PEPTIDE-SYNTHESIS; VASOTOCIN RECEPTORS; SYNTHETIC METHODS)
90-3372 001 (CELLULOSE SYNTHASE; CYCLIC DIGUANYLIC ACID REGULATORY SYSTEM; HYPHAL CELL-WALL; CONGO RED)
90-3982 001 (DNA PARADIGM; NUCLEIC-ACID BASES...

7/3,K/92 (Item 69 from file: 34) Links
SciSearch(R) Cited Ref Sci

01556580 Genuine Article#: HH270 No. References: 18
PROTONATION AND HYDROGEN-BONDING PROPERTIES OF SODIUM DEOXYADENOSIN-5'-YL THYMIDIN-3'-YL PHOSPHATE IN DIMETHYL-SULFOXIDE

Author: BARBARELLA G; TONDELLI L; TUGNOLI V
Corporate Source: CNR,IST COMPOSTI CARBONIO CONTENENTI ETEROATOMI& APPL,VIA CHIM 8/I-40064 OZZANO EMILIA//ITALY/; UNIV BOLOGNA,DIPARTIMENTO BIOCHIM/I-40126

BOLOGNA//ITALY/
Journal: JOURNAL OF CHEMICAL RESEARCH-S , 1992 , N2 (FEB) , P 56-57
Language: ENGLISH Document Type: ARTICLE
Research Fronts: ...COMPLEXES; DNA DUPLEX; ANTICANCER DRUG CISPLATIN; MODEL ADDUCTS; ANTITUMOR AGENTS)
 90-3372 001 (CELLULOSE SYNTHASE; CYCLIC DIGUANYLIC ACID REGULATORY SYSTEM; HYPHAL CELL-WALL; CONGO RED)

 7/3,K/93 (Item 70 from file: 34) Links
SciSearch(R) Cited Ref Sci

01548223 Genuine Article#: HH375 No. References: 341
CYCLIC-AMP IN PROKARYOTES

Author: BOTSFORD JL; HARMAN JG
Corporate Source: NEW MEXICO STATE UNIV,DEPT BIOL/LAS CRUCES//NM/88003; TEXAS TECH UNIV,DEPT CHEM & BIOCHEM/LUBBOCK//TX/79409
Journal: MICROBIOLOGICAL REVIEWS , 1992 , V 56 , N1 (MAR) , P 100-122
Language: ENGLISH Document Type: REVIEW (Abstract Available)
Research Fronts: ...SIGNAL TRANSDUCTION; FILAMENTOUS HEMAGGLUTININ GENE; PHOSPHORYLATION OF 2 REGULATORY COMPONENTS)
 90-3372 001 (CELLULOSE SYNTHASE; CYCLIC DIGUANYLIC ACID REGULATORY SYSTEM; HYPHAL CELL-WALL; CONGO RED)
 90-3960 001 (DNA TOPOISOMERASE-I; ANTITUMOR ANTIBIOTIC...

 7/3,K/94 (Item 71 from file: 34) Links
SciSearch(R) Cited Ref Sci

01544962 Genuine Article#: HG525 No. References: 25
BETA-FURFURYL-BETA-GLUCOSIDE - AN ENDOGENOUS ACTIVATOR OF HIGHER-PLANT UDP-GLUCOSE - (1-3)-BETA-GLUCAN SYNTHASE - BIOLOGICAL-ACTIVITY, DISTRIBUTION, AND INVITRO SYNTHESIS

Author: OHANA P; DELMER DP; VOLMAN G; STEFFENS JC; MATTHEWS DE; BENZIMAN M
Corporate Source: HEBREW UNIV JERUSALEM,DEPT BIOL CHEM/IL-91904 JERUSALEM//ISRAEL/; HEBREW UNIV JERUSALEM,DEPT BIOL CHEM/IL-91904 JERUSALEM//ISRAEL/; HEBREW UNIV JERUSALEM,DEPT BOT/IL-91904 JERUSALEM//ISRAEL/; HEBREW UNIV JERUSALEM,INST LIFE SCI/IL-91904 JERUSALEM//ISRAEL/; CORNELL UNIV,NEW YORK STATE COLL AGR & LIFE SCI,DEPT PLANT BREEDING & BIOMETRY/ITHACA//NY/14853
Journal: PLANT PHYSIOLOGY , 1992 , V 98 , N2 (FEB) , P 708-715
Language: ENGLISH Document Type: ARTICLE (Abstract Available)
Research Fronts: 90-3372 001 (CELLULOSE SYNTHASE; CYCLIC DIGUANYLIC ACID REGULATORY SYSTEM; HYPHAL CELL-WALL; CONGO RED)
  90-6511 001 (CA-2+ CHANNELS IN ISOLATED...

 7/3,K/95 (Item 72 from file: 34) Links
SciSearch(R) Cited Ref Sci

01543089 Genuine Article#: HG453 No. References: 33
PROBING THE MOLECULAR ARCHITECTURE OF (1,3)-BETA-GLUCAN (CALLOSE) SYNTHASE - POLYPEPTIDE DEPLETION STUDIES

Author: WASSERMAN BP; WU A; HARRIMAN RW
Corporate Source: RUTGERS STATE UNIV,COOK COLL,NEW JERSEY AGR EXPT STN,DEPT FOOD SCI/NEW BRUNSWICK//NJ/08903
Journal: BIOCHEMICAL SOCIETY TRANSACTIONS , 1992 , V 20 , N1 (FEB) , P 18-22
Language: ENGLISH Document Type: ARTICLE
Research Fronts: ...I; RAS ADENYLATE-CYCLASE PATHWAY; HEAT-SHOCK PROTEIN HSP70 FAMILY)
 90-3372 001 (CELLULOSE SYNTHASE; CYCLIC DIGUANYLIC ACID REGULATORY SYSTEM; HYPHAL

CELL-WALL; CONGO RED)

7/3,K/96 (Item 73 from file: 34) Links
SciSearch(R) Cited Ref Sci

01530368 Genuine Article#: HF693 No. References: 20
SYNTHESIS OF CYCLIC AND ACYCLIC OLIGOCYTIDYLATES BY URANYL-ION CATALYST IN AQUEOUS-SOLUTION

Author: SAWAI H; HIGA K; KURODA K
Corporate Source: GUNMA UNIV,FAC ENGN,DEPT CHEM/KIRYU/GUNMA 376/JAPAN/
Journal: JOURNAL OF THE CHEMICAL SOCIETY-PERKIN TRANSACTIONS I , 1992 , N4 (FEB) , P 505-508
Language: ENGLISH Document Type: ARTICLE (Abstract Available)
Research Fronts: ...COMPLEXES; DNA DUPLEX; ANTICANCER DRUG CISPLATIN; MODEL ADDUCTS; ANTITUMOR AGENTS)
90-3372 001 (CELLULOSE SYNTHASE; CYCLIC DIGUANYLIC ACID REGULATORY SYSTEM; HYPHAL CELL-WALL; CONGO RED)

7/3,K/97 (Item 74 from file: 34) Links
SciSearch(R) Cited Ref Sci

01490895 Genuine Article#: HD018 No. References: 64
PHOSPHOROTHIOATE OLIGONUCLEOTIDES - CHEMISTRY, PURIFICATION, ANALYSIS, SCALE-UP AND FUTURE-DIRECTIONS

Author: ZON G; GEISER TG
Corporate Source: APPL BIOSYST INC,THERAPEUT GRP,400 LINCOLN CTR DR/FOSTER CITY//CA/94404
Journal: ANTI-CANCER DRUG DESIGN , 1991 , V 6 , N6 (DEC) , P 539-568
Language: ENGLISH Document Type: ARTICLE (Abstract Available)
Research Fronts: ...THE H-PHOSPHONATE APPROACH; NATURAL DNA; REGULATION OF GENE-EXPRESSION)
90-3372 001 (CELLULOSE SYNTHASE; CYCLIC DIGUANYLIC ACID REGULATORY SYSTEM; HYPHAL CELL-WALL; CONGO RED)
90-5147 001 (PHOSPHOROTHIOATE ANALOGS; AUTOLYTIC PROCESSING REACTION...

7/3,K/98 (Item 75 from file: 34) Links
SciSearch(R) Cited Ref Sci

01485485 Genuine Article#: HC428 No. References: 80
MOLECULAR-SIZE AND SEPARABILITY FEATURES OF PEA CELL-WALL POLYSACCHARIDES - IMPLICATIONS FOR MODELS OF PRIMARY WALL STRUCTURE

Author: TALBOTT LD; RAY PM
Corporate Source: STANFORD UNIV,DEPT BIOL SCI/STANFORD//CA/94305; STANFORD UNIV,DEPT BIOL SCI/STANFORD//CA/94305
Journal: PLANT PHYSIOLOGY , 1992 , V 98 , N1 (JAN) , P 357-368
Language: ENGLISH Document Type: ARTICLE (Abstract Available)
Research Fronts: ...SUGAR-BEET PECTINS; STRUCTURAL FEATURES; HAIRY FRAGMENTS; REGENERATING CARROT PROTOPLASTS)
90-3372 001 (CELLULOSE SYNTHASE; CYCLIC DIGUANYLIC ACID REGULATORY SYSTEM; HYPHAL CELL-WALL; CONGO RED)

7/3,K/99 (Item 76 from file: 34) Links
SciSearch(R) Cited Ref Sci

01471933 Genuine Article#: HB652 No. References: 54
SELF-ASSEMBLY OF PLANT-CELL WALLS

Author: JARVIS MC
Corporate Source: UNIV GLASGOW,DEPT CHEM/GLASGOW G12 8QQ//SCOTLAND/
Journal: PLANT CELL AND ENVIRONMENT , 1992 , V 15 , N1 (JAN) , P 1-5
Language: ENGLISH Document Type: EDITORIAL (Abstract Available)
Research Fronts: ...OF INTACT WHEAT ROOTS; TREE STEMS; HYDRAULIC CONDUCTANCE; DROUGHT RESISTANCE)
90-3372 001 (CELLULOSE SYNTHASE; CYCLIC DIGUANYLIC ACID REGULATORY SYSTEM; HYPHAL CELL-WALL; CONGO RED)

7/3,K/100 (Item 77 from file: 34) Links
SciSearch(R) Cited Ref Sci

01462037 Genuine Article#: HA679 No. References: 15
STEREOSELECTIVE SYNTHESIS OF RIBONUCLEOSIDE 3',5'-CYCLIC METHYL(PHENYL)PHOSPHONATES AND PHOSPHONOTHIOATES

Author: ROELEN HCPF; DEVROOM E; WANG AHJ; VANDERMAREL GA; VANBOOM JH
Corporate Source: LEIDEN UNIV,GORLAEUS LABS,POB 9502/2300 RA LEIDEN//NETHERLANDS/; LEIDEN UNIV,GORLAEUS LABS,POB 9502/2300 RA LEIDEN//NETHERLANDS/; UNIV ILLINOIS,DEPT PHYSIOL & BIOPHYS/URBANA//IL/61801
Journal: NUCLEOSIDES AND NUCLEOTIDES , 1992 , V 11 , N1 , P 141-156
Language: ENGLISH Document Type: ARTICLE (Abstract Available)
Identifiers-- ...CYCLIC DIGUANYLIC ACID; ACETOBACTER-XYLINUM; CELLULOSE SYNTHESIS; DERIVATIVES
Research Fronts: ...0475 001 (SOLID-PHASE PEPTIDE-SYNTHESIS; VASOTOCIN RECEPTORS; SYNTHETIC METHODS)
90-3372 001 (CELLULOSE SYNTHASE; CYCLIC DIGUANYLIC ACID REGULATORY SYSTEM; HYPHAL CELL-WALL; CONGO RED)

7/3,K/101 (Item 78 from file: 34) Links
SciSearch(R) Cited Ref Sci

01453524 Genuine Article#: HA018 No. References: 87
PRACTICAL SYNTHESIS OF 2'-5'-LINKED OLIGOADENYLATES (2-5A OLIGOMERS)

Author: NOYORI R; UCHIYAMA M; NOBORI T; HIROSE M; HAYAKAWA Y
Corporate Source: NAGOYA UNIV,FAC SCI,DEPT CHEM/NAGOYA 46401//JAPAN/; NAGOYA UNIV,COLL GEN EDUC,DEPT CHEM/NAGOYA 46401//JAPAN/
Journal: AUSTRALIAN JOURNAL OF CHEMISTRY , 1992 , V 45 , N1 , P 205-225
Language: ENGLISH Document Type: ARTICLE (Abstract Available)
Research Fronts: ...OXIDATION; CONVENIENT REAGENTS; NUCLEIC-ACID RELATED-COMPOUNDS; PYRIMIDINE 2'-KETONUCLEOSIDES)
90-3372 001 (CELLULOSE SYNTHASE; CYCLIC DIGUANYLIC ACID REGULATORY SYSTEM; HYPHAL CELL-WALL; CONGO RED)
90-6030 001 (3-DEOXY-D-MANNO-2...

7/3,K/102 (Item 79 from file: 34) Links
SciSearch(R) Cited Ref Sci

01419063 Genuine Article#: GX701 No. References: 47
SOLUTION CONFORMATION OF AN OLIGONUCLEOTIDE CONTAINING A GG MISMATCH DETERMINED BY NUCLEAR-MAGNETIC-RESONANCE AND MOLECULAR MECHANICS

Author: COGNET JAH; GABARROARPA J; LEBRET M; VANDERMAREL GA; VANBOOM JH; FAZAKERLEY GV
Corporate Source: CENS,DEPT BIOL CELLULAIRE & MOLEC,SERV BIOCHIM & GENET MOLEC,BAT 142/F-91191 GIF SUR YVETTE//FRANCE/; CENS,DEPT BIOL CELLULAIRE & MOLEC,SERV BIOCHIM & GENET MOLEC,BAT 142/F-91191 GIF SUR YVETTE//FRANCE/; INST GUSTAVE ROUSSY,PHYSICOCHIM MACROMOLEC LAB/F-94800 VILLEJUIF//FRANCE/; LEIDEN UNIV,GORLAEUS

LABS/2300 RA LEIDEN//NETHERLANDS/
Journal: NUCLEIC ACIDS RESEARCH , 1991 , V 19 , N24 (DEC 25) , P 6771-6779
Language: ENGLISH Document Type: ARTICLE (Abstract Available)
Research Fronts: ...REPRESSOR HEADPIECE OPERATOR INTERACTION; RESTRAINED MOLECULAR-DYNAMICS; DUPLEX OLIGODEOXYRIBONUCLEOTIDE DODECAMERS)
90-3372 001 (CELLULOSE SYNTHASE; CYCLIC DIGUANYLIC ACID REGULATORY SYSTEM; HYPHAL CELL-WALL; CONGO RED)

7/3,K/103 (Item 80 from file: 34) Links
SciSearch(R) Cited Ref Sci

01406947 Genuine Article#: GX164 No. References: 43
HIV-1 DNA INTEGRATION - MECHANISM OF VIRAL-DNA CLEAVAGE AND DNA STRAND TRANSFER

Author: ENGELMAN A; MIZUUCHI K; CRAIGIE R
Corporate Source: NIDDKD,MOLEC BIOL LAB/BETHESDA//MD/20892
Journal: CELL , 1991 , V 67 , N6 (DEC 20) , P 1211-1221
Language: ENGLISH Document Type: ARTICLE (Abstract Available)
Identifiers-- ...IMMUNODEFICIENCY-VIRUS TYPE-1; CYCLIC DIGUANYLIC ACID; RETROVIRAL DNA; ACETOBACTER-XYLINUM; CELLULOSE SYNTHESIS; CHEMICAL SYNTHESIS; PROTEIN; INVITRO; RECOMBINATION; SEQUENCES
Research Fronts: ...002 (PHOSPHOROTHIOATE ANALOGS; AUTOLYTIC PROCESSING REACTION OF RNA; CATALYTIC ACTIVITY)
90-3372 001 (CELLULOSE SYNTHASE; CYCLIC DIGUANYLIC ACID REGULATORY SYSTEM; HYPHAL CELL-WALL; CONGO RED)

7/3,K/104 (Item 81 from file: 34) Links
SciSearch(R) Cited Ref Sci

01404399 Genuine Article#: GW289 No. References: 48
SIMULATIONS OF THE STATIC AND DYNAMIC MOLECULAR-CONFORMATIONS OF XYLOGLUCAN - THE ROLE OF THE FUCOSYLATED SIDE-CHAIN IN SURFACE-SPECIFIC SIDE-CHAIN FOLDING

Author: LEVY S; YORK WS; STUIKEPRILL R; MEYER B; STAEHELIN LA
Corporate Source: UNIV COLORADO,DEPT MOLEC CELLULAR & DEV BIOL/BOULDER//CO/80309; UNIV GEORGIA,COMPLEX CARBOHYDRATE RES CTR/ATHENS//GA/30602
Journal: PLANT JOURNAL , 1991 , V 1 , N2 (SEP) , P 195-215
Language: ENGLISH Document Type: ARTICLE (Abstract Available)
Research Fronts: ...SUGAR-BEET PECTINS; STRUCTURAL FEATURES; HAIRY FRAGMENTS; REGENERATING CARROT PROTOPLASTS)
90-3372 001 (CELLULOSE SYNTHASE; CYCLIC DIGUANYLIC ACID REGULATORY SYSTEM; HYPHAL CELL-WALL; CONGO RED)
90-7345 001 (CONFORMATIONAL-ANALYSIS OF OLIGOSACCHARIDES; 3...

7/3,K/105 (Item 82 from file: 34) Links
SciSearch(R) Cited Ref Sci

01399494 Genuine Article#: GW032 No. References: 87
THE MOLECULAR-BIOLOGY OF ANTHER DIFFERENTIATION

Author: SCOTT R; HODGE R; PAUL W; DRAPER J
Corporate Source: UNIV LEICESTER,DEPT BOT,UNIV RD/LEICESTER LE1 7RH//ENGLAND/
Journal: PLANT SCIENCE , 1991 , V 80 , N1-2 , P 167-191
Language: ENGLISH Document Type: ARTICLE (Abstract Available)
Research Fronts: ...4493 002 (POLLEN MORPHOLOGY; ULMACEAE (URTICALES); EVOLUTION OF BREEDING SYSTEMS)
90-3372 001 (CELLULOSE SYNTHASE; CYCLIC DIGUANYLIC ACID REGULATORY SYSTEM; HYPHAL CELL-WALL; CONGO RED)

7/3,K/106 (Item 83 from file: 34) Links
SciSearch(R) Cited Ref Sci

01391627 Genuine Article#: GV833 No. References: 33
RIGHT AND LEFT-HANDED HELICITY OF CHITIN MICROFIBRILS IN STIPE CELLS IN COPRINUS-CINEREUS

Author: KAMADA T; TAKEMARU T; PROSSER JI; GOODAY GW
Corporate Source: UNIV ABERDEEN,DEPT MOLEC & CELL BIOL/ABERDEEN AB9 1FX//SCOTLAND/; UNIV ABERDEEN,DEPT MOLEC & CELL BIOL/ABERDEEN AB9 1FX//SCOTLAND/; OKAYAMA UNIV,DEPT BIOL/OKAYAMA 700//JAPAN/
Journal: PROTOPLASMA , 1991 , V 165 , N1-3 , P 64-70
Language: ENGLISH Document Type: ARTICLE (Abstract Available)
Research Fronts: 90-3372 001 (CELLULOSE SYNTHASE; CYCLIC DIGUANYLIC ACID REGULATORY SYSTEM; HYPHAL CELL-WALL; CONGO RED)

7/3,K/107 (Item 84 from file: 34) Links
SciSearch(R) Cited Ref Sci

01209148 Genuine Article#: GE751 No. References: 27
CHROMONIC LYOMESOPHASES FORMED BY THE SELF-ASSEMBLY OF THE CYCLIC DINUCLEOTIDE D(CGPGP)

Author: BONAZZI S; DEMORAIS MM; GARBESI A; GOTTARELLI G; MARIANI P; SPADA GP
Corporate Source: UNIV BOLOGNA,DIPARTIMENTO CHIM ORGAN A MANGINI,VIA S DONATO 15/I-40127 BOLOGNA//ITALY/; UNIV BOLOGNA,DIPARTIMENTO CHIM ORGAN A MANGINI,VIA S DONATO 15/I-40127 BOLOGNA//ITALY/; UNIV ANCONA,IST FIS MED/I-60131 ANCONA//ITALY/; ICOCEA,CONSIGLIO NAZL RICERCHE/I-40064 OZZANO EMILIA//ITALY/
Journal: LIQUID CRYSTALS , 1991 , V 10 , N4 , P 495-506
Language: ENGLISH Document Type: ARTICLE (Abstract Available)
CHROMONIC LYOMESOPHASES FORMED BY THE SELF-ASSEMBLY OF THE CYCLIC DINUCLEOTIDE D(CGPGP)
Abstract: The cyclic dinucleotide d(cGpGp) undergoes a self-association process in water to give, first, columnar aggregates similar to the...

7/3,K/108 (Item 85 from file: 34) Links
SciSearch(R) Cited Ref Sci

00891217 Genuine Article#: FE005 No. References: 58
BIOGENESIS OF BACTERIAL CELLULOSE

Author: CANNON RE; ANDERSON SM
Corporate Source: UNIV N CAROLINA,DEPT BIOL/CHAPEL HILL//NC/27514; ROCHE BIOMED LABS,CTR MOLEC BIOL/RES TRIANGLE PK//NC/27709
Journal: CRITICAL REVIEWS IN MICROBIOLOGY , 1991 , V 17 , N6 , P 435-447
Language: ENGLISH Document Type: REVIEW (Abstract Available)
Identifiers-- ...CYCLIC DIGUANYLIC ACID; ACETOBACTER-XYLINUM; AGROBACTERIUM-TUMEFACIENS; ESCHERICHIA-COLI; INVITRO SYNTHESIS; NEGATIVE MUTANTS; TRANSFORMATION; CELLS; ATTACHMENT; FIBRILS

7/3,K/109 (Item 86 from file: 34) Links
SciSearch(R) Cited Ref Sci

00843836 Genuine Article#: FA695 No. References: 187
CELLULOSE BIOSYNTHESIS AND FUNCTION IN BACTERIA

Author: ROSS P; MAYER R; BENZIMAN M
Corporate Source: HEBREW UNIV JERUSALEM,INST LIFE SCI,DEPT BIOL CHEM/IL-91904 JERUSALEM//ISRAEL/; HEBREW UNIV JERUSALEM,INST LIFE SCI,DEPT BIOL CHEM/IL-91904 JERUSALEM//ISRAEL/

Journal: MICROBIOLOGICAL REVIEWS , 1991 , V 55 , N1 , P 35-58
Language: ENGLISH Document Type: REVIEW (Abstract Available)
Abstract: ...subunits, is subject to a multicomponent regulatory system. Regulation is based on the novel nucleotide cyclic diguanylic acid, a positive allosteric effector, and the regulatory enzymes maintaining its intracellular turnover: diguanylate cyclase and Ca2+-sensitive bis-(3',5')-cyclic diguanylic acid (c-di-GMP) phosphodiesterase. Four genes have been isolated from A. xylinum which constitute the...
Identifiers-- ...ROOT HAIR TIPS; LEGUMINOSARUM BIOVAR VICIAE; XANTHAN GUM BIOSYNTHESIS; POSSIBLE REGULATORY ROLE; CYCLIC DIGUANYLIC ACID; ACETOBACTER-XYLINUM; AGROBACTERIUM-TUMEFACIENS; RHIZOBIUM-LEGUMINOSARUM; ESCHERICHIA-COLI; UDP-GLUCOSE

7/3,K/110 (Item 87 from file: 34) Links
SciSearch(R) Cited Ref Sci

00806120 Genuine Article#: EY099 No. References: 22
COMPLEMENTATION OF CELLULOSE-NEGATIVE MUTANTS OF ACETOBACTER-XYLINUM BY THE CLONED STRUCTURAL GENE FOR PHOSPHOGLUCOMUTASE

Author: FJAERVIK E; FRYDENLUND K; VALLA S; HUGGIRAT Y; BENZIMAN M
Corporate Source: UNIV TRONDHEIM,CTR MOLEC BIOL,PROFESSOR BROCHS GT 6/N-7030 TRONDHEIM//NORWAY/; HEBREW UNIV JERUSALEM,INST LIFE SCI,DEPT BIOL CHEM/JERUSALEM//ISRAEL/
Journal: FEMS MICROBIOLOGY LETTERS , 1991 , V 77 , N2-3 , P 325-330
Language: ENGLISH Document Type: ARTICLE (Abstract Available)
Identifiers-- ...CYCLIC DIGUANYLIC ACID; ESCHERICHIA-COLI; PLASMIDS; MOBILIZATION; MUTAGENESIS; CLONING; SYSTEM

7/3,K/111 (Item 1 from file: 50) Links
  Fulltext available through: USPTO Full Text Retrieval Options
CAB Abstracts

0006352817 CAB Accession Number: 19910741784
Regulatory mechanisms of beta-glucan synthases in bacteria, fungi and plants.

Mullins, J. T.
J.T. Mullins, Dep. of Botany, Univ. of Florida, Gainesville, FL 32611, USA.
Physiologia Plantarum vol. 78 (2): p.309-314
Publication Year: 1990
ISSN: 0031-9317
Language: English Record Type: Abstract
Document Type: Journal article
... effectors have been characterized and shown to produce activation in vitro. One is 3prime,5prime-cyclic diguanylic acid that is the activator of cellulose synthase in bacteria. The other is a beta-linked...

7/3,K/112 (Item 1 from file: 73) Links
  Fulltext available through: USPTO Full Text Retrieval Options
EMBASE

0079604567 EMBASE No: 2003312296
  A facile synthesis of cyclic bis(3prime-->5prime)diguanylic acid

  Hayakawa Y.; Nagata R.; Hirata A.; Hyodo M.; Kawai R. // Hayakawa Y.
  Laboratory of Bioorganic Chemistry, Graduate School of Human Informatics, Nagoya University, Chikusa, Nagoya 464-8601, Japan // Laboratory of Bioorganic Chemistry, Grad. School of Information Science, Nagoya University, Chikusa, Nagoya 464-8601, Japan
 Author email: yoshi@info.human.nagoya-u.ac.jp; yoshi@info.human.nagoya-u.ac.jp
 Corresp. Author: Hayakawa Y.

Corresp. Author Affil: Laboratory of Bioorganic Chemistry, Grad. School of Information Science, Nagoya University, Chikusa, Nagoya 464-8601, Japan
Corresp. Author email: yoshi@info.human.nagoya-u.ac.jp

Tetrahedron (Tetrahedron) (United Kingdom) August 18, 2003 , 59/34 (6465-6471)
CODEN: TETRA ISSN: 00404020
Item Identifier (DOI): 10.1016/S0040-4020(03)01045-7
Document Type: Journal ; Article Record Type: Abstract
Language: English Summary language: English
Number of References: 26

...paper describes a new method for synthesizing biologically important cyclic bis(3prime-->5prime)diguanylic acid (cGpGp) in a higher yield than that of the existing synthetic method. In the new synthesis... ...at once by the organopalladium-catalyzed reaction under neutral conditions. Thus, deprotection of the protected cGpGp precursor was achieved in the present synthesis in a shorter step and under milder conditions...

7/3,K/113 (Item 1 from file: 144) Links
Pascal

11587223 PASCAL No.: 94-0473314

Molecular structure of cyclic diguanylic acid at 1 A resolution of two crystal forms: self-association, interactions with metal ion/planar dyes and modeling studies

YUE GUAN; YI-GUI GAO; YEN-CHYWAN LIAW; ROBINSON H; WANG A H J

Univ. Illinois Urbana-Champaign, div. biophysics, Urbana IL 61801, USA
Journal: Journal of biomolecular structure & dynamics , 1993, 11 (2) 253-276
Language: English

Molecular structure of cyclic diguanylic acid at 1 A resolution of two crystal forms: self-association, interactions with metal ion/planar...

>>>W: KWIC option is not available in file(s): 399
7/3,K/114 (Item 2 from file: 144) Links
Pascal

09699778 PASCAL No.: 91-0496908

Cyclic diguanylic acid behaves as a host molecule for planar intercalators

YEN-CHYWAN LIAW; YI-GUI GAO; ROBINSON H; SHELDRICK G M; SLIEDREGT L A J M; VAN DER MAREL G A; VAN BOOM J H; WANG A H J
Univ. Illinois at Urbana-Champaign, dep. physiology biophysics, Urbana IL 60801, USA

  Journal: FEBS letters, 1990
, 264 (2) 223-227
  Language: English

  Cyclic diguanylic acid behaves as a host molecule
for planar intercalators

 7/3,K/115 (Item 3 from file: 144) Links
Pascal

  02840749   PASCAL No.: 80-0450958

  STUDIES ON TRANSFER RIBONUCLEIC ACIDS AND RELATED COMPOUNDS. XXVI:
CIRCULAR DICHROIC PROPERTIES OF CYCLIC OLIGORIBONUCLEOTIDES AND THEIR
LINEAR COUNTERPARTS

  MARKHAM A F; NAKAGAWA E; OHTSUKA E; IKEHARA M
  OSAKA UNIV., FAC. PHARM. SCI.,OSAKA 565,JAPAN
  Journal: BIOPOLYMERS, 1980
, 19 (2) 285-296
  Language: ENGLISH

French Descriptors: ARN TRANSFERT; DICHROISME CIRCULAIRE;
  OLIGORIBONUCLEOTIDE; CONFORMATION; SOLUTION; ACIDE NUCLEIQUE;
  OLIGORIBONUCLEOTIDE CYCLIQUE; CUPUP; CGPGP; CUPUPUP; CUPUPUPUP

 7/3,K/116 (Item 1 from file: 155) Links
MEDLINE(R)

14513294   PMID: 14510401
A new synthetic approach to cyclic bis(3'-->5')diguanylic acid.

Kawai Rie; Nagata Reiko; Hirata Akiyoshi; Hayakawa Yoshihiro
Graduate School of Human Informatics, Nagoya University, Chikusa, Nagoya 464-8601,
Japan.
Nucleic acids research. Supplement (2001) (England)   2003 ,   (3) p103-4 ,
Journal Code: 101169367
Publishing Model Print
Document type: Journal Article
Languages: ENGLISH
Main Citation Owner: NLM
Record type: MEDLINE; Completed
We developed a novel synthesis of biologically important cyclic
bis(3'-->5')diguanylic acid (cGpGp). The present synthesis includes two strategies
different from those employed in an existing synthesis. They...
Chemical Name: bis(3',5')-cyclic diguanylic acid; Cyclic GMP

7/3,K/117 (Item 2 from file: 155) Links
Fulltext available through: USPTO Full Text Retrieval Options
MEDLINE(R)

13426263 PMID: 11598227
Cellulose in cyanobacteria. Origin of vascular plant cellulose synthase?

Nobles D R; Romanovicz D K; Brown R M
Section of Molecular Genetics and Microbiology, The University of Texas, Austin, 78712, USA.
Plant physiology (United States) Oct 2001 , 127 (2) p529-42 , ISSN: 0032-0889--Print Journal Code: 0401224
Publishing Model Print
Document type: Journal Article; Research Support, Non-U.S. Gov't; Research Support, U.S. Gov't, Non-P.H.S.
Languages: ENGLISH
Main Citation Owner: NLM
Record type: MEDLINE; Completed
Enzyme No.: ...1.- (Glucosyltransferases); EC 2.4.1.- (PRC1 protein, Arabidopsis); EC 2.4.1.- (cellulose synthase (cyclic diguanylic acid)); EC 2.4.1.12 (cellulose synthase (UDP-forming))
Chemical Name: Arabidopsis Proteins; Polysaccharides, Bacterial; Cellulose; Glucosyltransferases; PRC1 protein, Arabidopsis; cellulose synthase (cyclic diguanylic acid); cellulose synthase (UDP-forming)

7/3,K/118 (Item 3 from file: 155) Links
Fulltext available through: USPTO Full Text Retrieval Options
MEDLINE(R)

13025215 PMID: 11178255
Higher plant cellulose synthases.

Richmond T
Department of Plant Biology, Carnegie Institution of Washington, 260 Panama Street, Stanford, CA 94305, USA. todd@andrew2.stanford.edu
Genome biology (England) 2000 , 1 (4) pREVIEWS3001 , ISSN: 1465-6914--Electronic Journal Code: 100960660
Publishing Model Print-Electronic
Document type: Journal Article; Review
Languages: ENGLISH
Main Citation Owner: NLM
Record type: MEDLINE; Completed
Enzyme No.: EC 2.4.1.- (Glucosyltransferases); EC 2.4.1.- (cellulose synthase (cyclic diguanylic acid))
Chemical Name: Glucosyltransferases; cellulose synthase (cyclic diguanylic acid)

7/3,K/119 (Item 4 from file: 155) Links
Fulltext available through: USPTO Full Text Retrieval Options
MEDLINE(R)

10649320 PMID: 7487952
The novel cyclic dinucleotide 3'-5' cyclic diguanylic acid binds to p21ras and enhances DNA synthesis but not cell replication in the Molt 4 cell line.

Amikam D; Steinberger O; Shkolnik T; Ben-Ishai Z
Molecular Genetics Unit, Rambam Medical Center, Haifa, Israel.
Biochemical journal (ENGLAND) Nov 1 1995 , 311 (Pt 3) p921-7 , ISSN: 0264-6021--Print Journal Code: 2984726R
Publishing Model Print
Document type: Journal Article
Languages: ENGLISH

Main Citation Owner: NLM
Record type: MEDLINE; Completed
The novel cyclic dinucleotide 3'-5' cyclic diguanylic acid binds to p21ras and enhances DNA synthesis but not cell replication in the Molt 4...
1. The effect of the novel, naturally occurring nucleotide 3'-5' cyclic diguanylic acid (c-di-GMP) on the lymphoblastoid Molt 4 cell line was studied. When exposed to...
Chemical Name: Proteins; Tritium; Thymidine; bis(3',5')-cyclic diguanylic acid; Cyclic GMP; Guanosine Triphosphate; DNA; HRAS protein, human; Proto-Oncogene Proteins p21(ras)

7/3,K/120 (Item 1 from file: 393) Links
Beilstein Database - Abstracts

Beilstein Abstract Id: 6422351
Title: A facile synthesis of cyclic bis(3'-)5')diguanylic acid
Document Type: Journal Record Type: Abstract
Author: Hayakawa, Yoshihiro; Nagata, Reiko; Hirata, Akiyoshi; Hyodo, Mamoru; Kawai, Rie
Citation: Tetrahedron (2003) Series: 59-34, 6465 - 6472 CODEN: TETRAB Language: English
Abstract Language: English
Abstract: ... paper describes a new method for synthesizing biologically important cyclic bis(3'-)5')diguanylic acid (cGpGp) in a higher yield than that of the existing synthetic method. In the new synthesis... ... at once by the organopalladium-catalyzed reaction under neutral conditions. Thus, deprotection of the protected cGpGp precursor was achieved in the present synthesis in a shorter step and under milder conditions...

7/3,K/121 (Item 1 from file: 399) Links
Fulltext available through: USPTO Full Text Retrieval Options
CA SEARCH(R)

121301202 CA: 121(25)301202b JOURNAL
Molecular structure of cyclic diguanylic acid at 1 .ANG. resolution of two crystal forms: self-association, interactions with metal ion/planar dyes and modeling studies
Author: Guan, Yue; Gao, Yi Gui; Liaw, Yen Chywan; Robinson, Howard; Wang, Andrew H. J.
Location: Div. Biophys., Univ. Illinois, Urbana, IL, 61801, USA
Journal: J. Biomol. Struct. Dyn.
Date: 1993
Volume: 11 Number: 2 Pages: 253-76
CODEN: JBSDD6
ISSN: 0739-1102
Language: English

7/3,K/122 (Item 2 from file: 399) Links
CA SEARCH(R)

119153377 CA: 119(15)153377d PATENT
Cloning of cyclic di-guanylate metabolic enzymes of Acetobacter xylinum
Inventor (Author): Tal, Rony; Gelfand, David H.; Calhoon, Roger D.; Ben-Bassat, Arie; Benziman, Moshe; Wong, Hing Cheung
Location: USA
Assignee: Weyerhaeuser Co.
Patent: PCT International ; WO 9311244 A1 Date: 930610
Application: WO 92US8756 (921014) *US 800218 (911129)

Pages: 97 pp.
CODEN: PIXXD2
Language: English
Patent Classifications:
  Class: C12N-015/52A; C12N-015/55B; C12N-015/60B; C07K-015/00B; C12N-001/20B; C12P-019/04
Designated Countries: JP; UA
Designated Regional: AT; BE; CH; DE; DK; ES; FR; GB; GR; IE; IT; LU; MC; NL; SE

7/3,K/123 (Item 1 from file: 357) Links
Derwent Biotech Res.

0151989 DBA Accession No.: 93-10041 PATENT
Polynucleotide sequence from Acetobacter cdg operon
- diguanylate-cyclase or diguanylate-phosphodiesterase gene cloning in microorganism with altered cellulose-synthase activity, for altered cellulose production

Patent Assignee: Weyerhauser 1993
Patent Number: WO 9311244 Patent Date: 930610 WPI Accession No.: 93-197062 (9324)
Priority Application Number: US 800218 Application Date: 911129
National Application Number: WO 92US8756 Application Date: 921014
Language: English
Abstract: A new DNA sequence contains a cyclic diguanylate (cdg) operon gene (cdg1, cdg2 and cdg3) from the genome of an Acetobacter sp. The...

7/3,K/124 (Item 1 from file: 391) Links
Beilstein Database - Reactions

Reaction Id: 10015452
    Reactants
      BN=10236005 C44H68N14O14P2Si2
    Products
      BN=10234824 3',5'-cyclic diguanylic acid diammonium salt
    No. of Reaction Details: 1
    No. of References: 1
    Products
      BN=10234824 3',5'-cyclic diguanylic acid diammonium salt

7/3,K/125 (Item 1 from file: 266) Links
FEDRIP

00591547
Identifying No.: 5K08AI066251-02 Agency Code: CRISP
Antibiotic-mediated Adaptation of Pseudomonas aeruginosa

Principal Investigator: HOFFMAN, LUCAS R
Address: LHOFFM@U.WASHINGTON.EDU CHILDREN'S HOSP&REGIONAL MED CTR 4800 SAND POINT WAY NE, BOX 3D-4 SEATTLE, WA 98105
Performing Org.: UNIVERSITY OF WASHINGTON , SEATTLE , WASHINGTON
Sponsoring Org.: NATIONAL INSTITUTE OF ALLERGY AND INFECTIOUS DISEASES
Dates: 2007/15/05 To 2005/31/08 Fy : 2006
Summary: ...challenge. Preliminary evidence suggests a role for two cell signaling systems, quorum sensing and the cyclic diguanylate pathway, in the response to tobramycin. Published data led to the hypothesis that responses to...

7/3,K/126 (Item 2 from file: 266) Links
FEDRIP

00587488
Identifying No.: 2R01AI045746-06A1 Agency Code: CRISP
Role of c-diGMP signaling in Vibrio cholerae virulence

Principal Investigator: CAMILLI, ANDREW
Address: andrew.camilli@tufts.edu TUFTS UNIVERSITY 136 Harrison Avenue Boston, MA 02111
Performing Org.: TUFTS UNIVERSITY BOSTON , BOSTON , MASSACHUSETTS
Sponsoring Org.: NATIONAL INSTITUTE OF ALLERGY AND INFECTIOUS DISEASES
Dates: 2003/01/00 To 2002/28/11 Fy : 2006
Summary: ...demonstrated that signaling by external amino acids modulates the cytoplasmic concentration of the secondary messenger cyclic diguanylate (c-diGMP), leading to reciprocal regulation of genes important for biofilm formation and virulence. We...

7/3,K/127 (Item 3 from file: 266) Links
FEDRIP

00570396
Identifying No.: 0209562 Agency Code: AGRIC
Conserved pathway linking cyclic dimeric GMP to E. coli motility and pathogenesis

  pathogenesis
Associate Investigators: Gomelsky, M.; Basile, F.; Sreejayan, -.
Performing Org.: UNIVERSITY OF WYOMING, MOLECULAR BIOLOGY , LARAMIE , WYOMING 82071
Descriptors: cyclic diguanylate; c-di-gmp; virulence; e. coli; motility; cell wall; pathogenesis

7/3,K/128 (Item 4 from file: 266) Links
FEDRIP

00485107
Identifying No.: 166258 ; 0004; 512 Agency Code: VA
Cyclic Dinucleotides Inhibit Colon Cancer Cell Growth

Principal Investigator: Raufman, Jean-Pierre, M.D.
Performing Org.: Department of Veterans Affairs, Medical Center, Baltimore, MD
Sponsoring Org.: Department of Veterans Affairs, Research and Development (15) , 810 Vermont Ave. N.W. , Washington , D.C. 20420 United States of America
Dates: 20041009
Summary: ...and effective molecular approaches to treating colon cancer are needed. The cyclic dinucleotide, 3', 5'-cyclic diguanylic acid (cyclic-di-GMP), is a novel and unique nucleotide identified in bacteria. Cyclic dinucleotides are...

7/3,K/129 (Item 5 from file: 266) Links
FEDRIP

00436630
Identifying No.: 0316270 Agency Code: NSF
Cyclic Diguanylate, A Novel Secondary Messenger in Bacteria

Principal Investigator: Gomelsky, Mark
Performing Org.: University of Wyoming, Molecular Biology , Laramie , WY 82071
Project Monitor: Weiner, Ronald M.
Sponsoring Org.: National Science Foundation, MCB , 4201 Wilson Boulevard , Arlington , Virginia 22230

Dates: 20030901 To 20060831 Fy : 2003 Funds: $1,265,000 (1000000)
Cyclic Diguanylate, A Novel Secondary Messenger in Bacteria

Summary: ...The GGDEF and EAL domains are involved in synthesis and hydrolysis of the unusual nucleotide, cyclic diguanylate, c-di-GMP. The main hypothesis of this project is that c-di-GMP is...

7/3,K/130 (Item 1 from file: 315) Links
ChemEng & Biotec Abs
343617 CEABA Accession No.: 25-09-014932
Document Type: Patent
Cyclic diguanylate metabolic enzymes.

Author: Tal, R.; Gelfand, D. H.; Calhoon, R. D.; Ben-Basset, A.; Benziman, M.; Wong, Hing
Corporate Source: Weyerhauser Co. Tacoma, WA 98477 USA
CODEN: PIXXD2
Patent Number: WO 9311244
Publication Date: 10 Jun 1993 (930610) Language: English
Priority Patent Application & Date: US 800218 (911229)
Cyclic diguanylate metabolic enzymes.

7/3,K/131 (Item 1 from file: 149) Links
TGG Health&Wellness DB(SM)

01099266 Supplier Number: 04163484 (USE FORMAT 7 OR 9 FOR FULL TEXT)
Gordon Research Conferences. (Summer, 1986)

Cruickshank, Alexander M.
Science , v231 , p1163(37)
March 7 ,
1986
Publication Format: Magazine/Journal
ISSN: 0036-8075
Language: English
Record Type: Fulltext Target Audience: Academic
Word Count: 28553 Line Count: 03203

...applications of the explosion process." (P. C. Trotter, discussion leader): M. Benziman, "The cyclic diguanylic acid regulatory system of bacterial cellulose synthesis"; T. W. Jeffries, "Regulation and kinetics of xylose fermentations in Pachysolen...